REPORT RESUMES

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CALIFORNIA STATE CONFERENCE ON VOCATIONAL EDUCATION (LOS ANGELES, JANUARY 11-12, 1965).

CALIFORNIA STATE DEPT. OF EDUCATION, SACRAMENTO

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MORE THAN 800 DELEGATES, REPRESENTING A CROSS SECTION OF CALIFORNIA'S LEADERS, MET TO CONSIDER THE PLACE OF VOCATIONAL EDUCATION IN TOMORROWS WORLD. THE FOLLOWING ADDRESSES WERE GIVEN AT THE GENERAL SESSIONS--(1) "MAN'S RELATIONSHIP TO HIS WORKING ENVIRONMENT," (2) "NEEDS OF OUR LABOR FORCE IN THE NEXT DECADE," (3) "VOCATIONAL EDUCATION--A WAY OF LIFE," (4) "VOCATIONAL NEED FOR CONTINUING EDUCATION," AND (6) "VOCATIONAL EDUCATION IS EVERYONE'S JOB," THE TOPICS OF THE DISCUSSION SECTIONS WERE--(1) "WHAT MAKES YOUTH EMPLOYABLE," (2) "HOW FUTURE MANPOWER AND TRAINING NEEDS CAN BE IDENTIFIED," (3) THE ROLE OF BUSINESS AND INDUSTRY IN VOCATIONAL EDUCATION," (4) "THE RESPONSIBILITY FOR VOCATIONAL EDUCATION," (6) "WORK EXPERIENCE EDUCATION AND VOCATIONAL EDUCATION," (7) "VOCATIONAL EDUCATION AND THE SOCIOECONOMICALLY HANDICAPPED," (8) "PROGRESS AND PROMISE FOR EDUCATING ADULTS FOR EMPLOYMENT," (9) "COUNSELING AND GUIDANCE FOR OCCUPATIONAL TRAINING," (10) "THE RESPONSIBILITY OF THE DEPARTMENT OF EDUCATION FOR VOCATIONAL EDUCATION," (11) "FINANCING VOCATIONAL EDUCATION." (SL)

65 CALIFORNIA STATE CONFERENCE ON VOCATIONAL EDUCATION

Report

HELD AT LOS ANGELES • JANUARY 11 & 12, 1965

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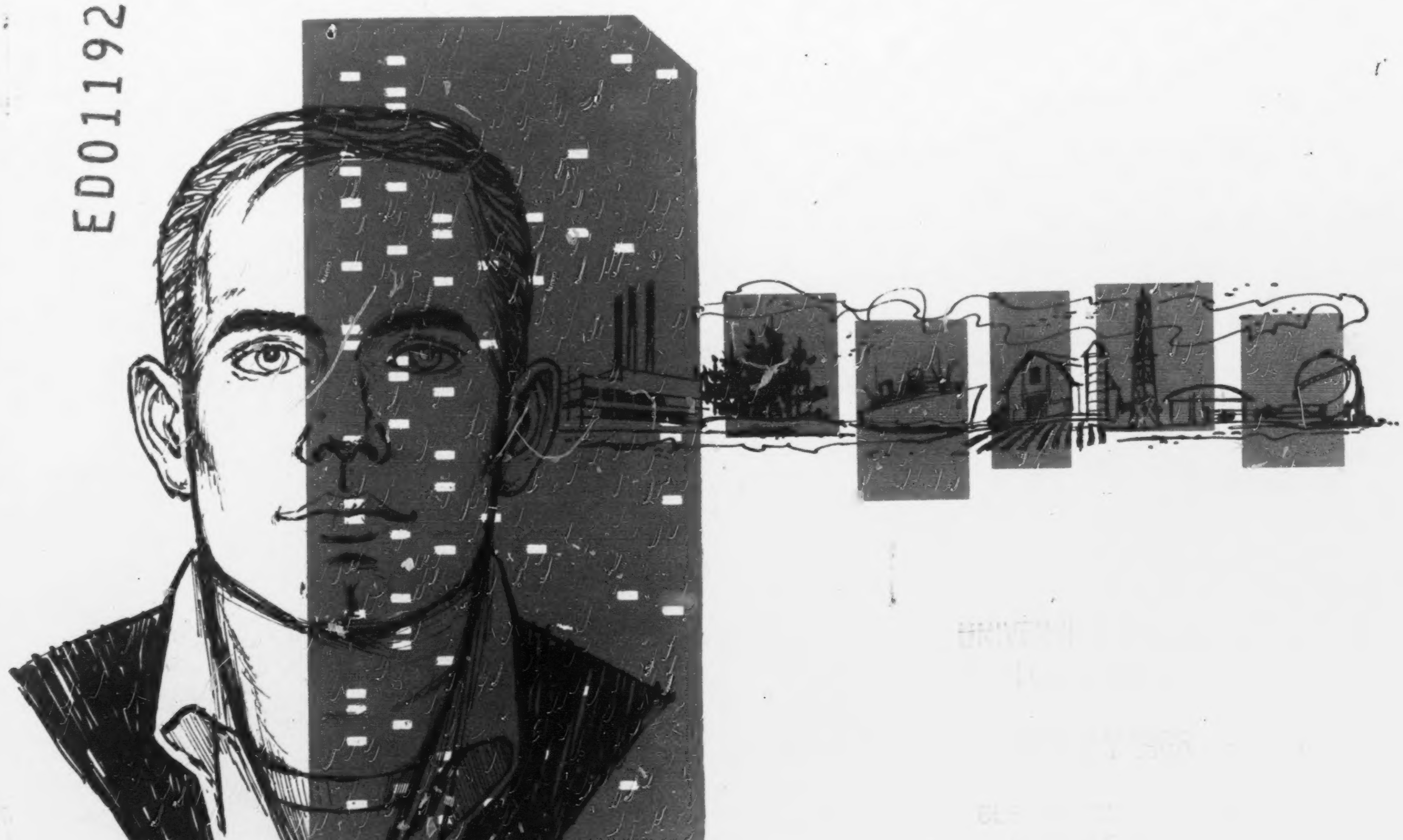

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Vocational Education:
ESSENTIAL TO ECONOMIC PROGRESS

VT 00395

CALIFORNIA STATE DEPARTMENT OF EDUCATION

MAX RAFFERTY
Superintendent of
Public Instruction

SACRAMENTO, CALIFORNIA
1965

~~JB 660 080~~

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Report of the

California State Conference

on

VOCATIONAL EDUCATION

January 11-12, 1965

Los Angeles, California

DEPARTMENT OF EDUCATION
STATE OF CALIFORNIA

U. S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
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"If we are learning anything from our experience, we are learning that it is time for us to go to work, and the first work of these times and the first work of our society is education."

—LYNDON B. JOHNSON

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Note: Status as of conference date.

65 CALIFORNIA STATE VOCATIONAL EDUCATION *Report*

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"The basic purpose of our vocational education effort is sound and sufficiently broad to provide a basis for meeting future needs. However, the technological changes which have occurred in all occupations call for a review and reevaluation."

—JOHN F. KENNEDY
February 20, 1961

Preface

Californians have long valued all aspects of education and have allocated a major portion of the state's resources to a public school system designed to benefit all citizens in all areas of educational preparation. To meet the needs of California's millions in these decades of breathtaking technological change, it has become increasingly important to education—particularly vocational education—to adjust to modern needs. No longer is there time for a slow diffusion of occupational changes into the educational curriculum. Change must be rapid; otherwise our complex social and economic systems can be seriously damaged.

It was to chart a new course for vocational education that the California State Conference on Vocational Education was convened. A cross-section of Californians met the issues head on in an intensive two days of discussion, reflection, and deliberation.

This report is intended to provide a summary of the discussions, the actions, and the points of view expressed at the conference. In a sense, this report may serve as a window to the future development of vocational education in California.

THOMAS W. BRADEN
President
State Board of Education

MAX RAFFERTY
Superintendent of Public Instruction
and Director of Education

CALIFORNIA

CONFERENCE ON

By Lachlan MacDonald

A PIONEER CONFERENCE for policy-level study of vocational education in the state of California has given definition to the new dimensions of a large-scale program in occupational training.

Some 800 delegates of community, industry, labor, business, church, and school groups met together and heard from key national, state, and local authorities. Their aim: to develop greater understanding of the problems affecting the current and future educational needs of the nation's work force.

The two-day conference at the Statler-Hilton Hotel in Los Angeles, January 11-12, 1965, created a pattern of information, discussion, and cooperation designed to improve and expand vocational education in California high schools, adult education programs, and junior colleges. At the same time the conference demonstrated ways in which other states may develop plans to utilize the benefits of extensive and complex federal legislation, such as the far-reaching Vocational Education Act of 1963.

Immediate press, radio, and television response and the comments of the delegates themselves indicate the growth of greater understanding, acceptance, and willingness to support vocational education programs.

The conference, which was called by Max Rafferty, California's Superintendent of Public Instruction, and the State Board of Education, laid a basis for reestablishment of the dignity of work and the value of labor.

Those in attendance heard six general session addresses on major topics which were supplemented by detailed presentations in 11 afternoon discussion sessions. In addition, six young people presented "Now Hear Youth," a panel on current vocational experiences. Written versions of the general session speeches and summaries of the discussions and of the youth panel appear in this report.

> ***Tomorrow science will have moved forward yet one more step, and there will be no appeal from the judgment which will then be pronounced on the uneducated.***
>
> —ALFRED NORTH WHITEHEAD

The chief legislative topic among conferees was the Vocational Education Act of 1963, which some authorities predicted will have a national influence comparable to that of the Morrill Act of 1862 and the Hatch Act of 1887, the milestone laws which established America's land-grant colleges and the agricultural experiment stations operated in connection with them.

TOMORROW

The Vocational Education Act of 1963 has its roots in the National Vocational Education acts first adopted by the Congress in 1917 and subsequently amended. Every year since 1917, Congress has reviewed the local-state-federal programs, which have been expanded and extended by several successive enactments.

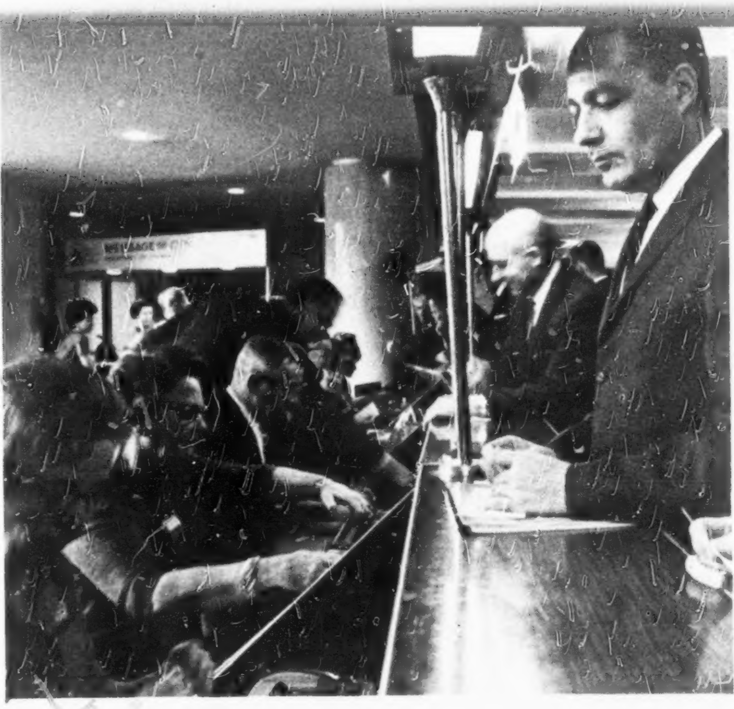
THE MAJOR VOCATIONAL EDUCATION statutes, which many attending the conference have helped to develop or implement at various levels of society, are:

- The Smith-Hughes Act of 1917, which provides $7 million annually toward preparation of vocational education teachers, promotion of vocational education programs, and state development of vocational education in agriculture, the trades, homemaking, and industry
- The George-Barden Act of 1946, which provides $29 million annually for further vocational education
- The Practical Nurse Amendment of 1956, which provides $5 million annually to increase the number of adequately trained professional and practical nurses and health personnel
- The Fishery Training Amendment of 1956, which provides $180,000 annually for fishery personnel training
- The National Defense Education Act of 1958, which provides $15 million annually for technician training
- The Manpower Development and Training Act of 1962, which provides for the retraining of persons displaced by automation and other changes in the economy. In 1964–65 this program provided $110 million for such training and allowances
- The Area Redevelopment Act of 1961, which provided $4.5 million annually for training in economically distressed areas until 1965

In addition, special World War II vocational education programs trained 7.5 million people in a five-year period, at a cost of $297 million.

In fiscal 1964 the combined federal statutes, exclusive of the Vocational Education Act of 1963, were providing $170.6 million annually to benefit 4 million students (half of them adults) in high schools and colleges. Every state and territory offers federally aided vocational educational programs; in all but the most recent programs, states must match federal funds, dollar for dollar.

On February 20, 1961, President John F. Kennedy, in his message to Congress on American education,



California takes a look at the future of vocational education

told of his plans to convene an advisory body to review and evaluate the current national vocational education acts and to make recommendations for improving and redirecting the program.

> ***Every individual has a place to fill in the world, and is important in some respect whether he chooses to be so or not.***
>
> —NATHANIEL HAWTHORNE

On October 5, 1961, the White House announced that the Secretary of Health, Education, and Welfare had appointed the panel of consultants on vocational education. The panel concluded its review and submitted its report in November, 1962. Copies of the report, *Education for a Changing World of Work*, along with appendixes and a summary report, are available from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C., 90402.

In *Education for a Changing World of Work*, the President's panel charted the course of the new programs which vocational education must develop to serve a nation in technological and economic change.

The panel pointed out that of the 87 million people working full-time by 1970, 26 million of them will be young workers starting jobs for the first time. To make sure that these young people have the aptitudes, skills, and education to match the needs of the economy is a giant task.

OF EVERY TEN PUPILS now in elementary schools, three will not graduate from high school, three will graduate and go to work, and four will continue their education. Of the four, only two will finish four years of college. In other words, even though college enrollments will double during this decade, eight out of ten pupils now enrolled in the elementary schools will not graduate from college. How, asked the President's panel, will these eight out of ten fare in the changing world of work?

The panel recommended a local-state-federal partnership to teach the skills the nation needs. It reported that:

- Vocational education is not available in enough schools.
- Vocational education is not available to all who need it.
- Vocational education is not preparing for enough jobs.
- The need for technical training after high school is critical.

In a specific agenda for action, the panel proposed federal appropriations for:

1. Youth in high school who are preparing to enter the labor market or to become homemakers

The conference explored minori

2. High school youth with academic, socioeconomic, or other handicaps that prevent them from succeeding in the regular vocational education program

3. Youth and adults who have completed or left high school and are full-time students preparing to enter the labor market

4. Youth and adults unemployed or at work who need training or retraining to achieve employment stability

5. Services and facilities required to assure quality in all vocational and technical education programs

Congressional leadership was quick to recognize the priority and practicality of the panel's call for appropriations. With the passage of the Vocational Education Act of 1963, a program of federal assistance which will reach $225 million annually was provided to continue to improve vocational education.

The implications of the Vocational Education Act of 1963 were explained at the conference by Walter Arnold, Assistant U.S. Commissioner of Education for Vocational Education Services:

> The bill removes the so-called restrictions or limitations that previously existed under the older Vocational Education acts and now opens wide to the states and their school systems many opportunities for expanding services. For example, the New Vocational Education Act requires that the programs be geared much more closely to the labor market needs. It identifies employment opportunities. It opens wide the whole range of occupations for assistance in organizing training other than in the professions. It suggests, and in fact almost requires, that training opportunities be offered for all levels of ability in jobs other than professions. It contemplates that all kinds of institutions in the country will be used; that is, the comprehensive high schools, the vocational-technical high schools, so-called area schools, junior and community colleges, and in fact the four-year colleges and the universities.

DR. ARNOLD POINTED OUT that the law requires constant evaluation of its own program, with the first evaluation group, which will be appointed next year, to report to Congress by January 1, 1968. Another important feature is the provision of 10 percent of the annual appropriation for research into vocational-technical education problems throughout the country.

"In general," Dr. Arnold summarized, "all these measures contemplate a much more massive attack on the economic and social problems of the country."

Most appropriately, the keynote speaker of the California State Conference on Vocational Education was the sponsor of the Vocational Education Act of 1963, the Honorable Carl Perkins, Congressman from the Seventh District, Commonwealth of Kentucky.

Pointing out that national problems become state problems because of population mobility, Congressman Perkins suggested ways in which the Vocational Education Act will help Americans to meet the changes created by automation, defense needs, dropout trends, minority group struggles, and other problems. He focused attention on a lack in education in basic skills at the elementary and secondary levels, education which would make individual adjustment possible, enabling persons to reach their potential and profit from established programs.

> ***There is as much dignity in tilling a field as in writing a poem.***
>
> —BOOKER T. WASHINGTON

The Congressman praised California for setting a pattern of leadership by utilizing the Vocational Education Act of 1963 for local programs.

The Kentuckian's message to Californians followed the opening remarks of Max Rafferty, Superintendent of Public Instruction, who announced plans for a nationwide conference of the states which he hoped

group problems

For some the conference was an initiation into a larger world of vocational education than they had previously experienced.

would chart the course of education for the next decade, particularly in the area of vocational education.

"More of our young people are involved in this area than any other, and, therefore, it is going to assume a proportionately large place on the national scale," California's Superintendent of Public Instruction noted.

> ***Each man has his vocation. The talent is the call.***
>
> —Ralph Waldo Emerson

Dr. Rafferty posed some general questions for the delegates, urging them not to be satisfied with theoretical answers to questions like the following: What should we be teaching boys and girls in the high school area of vocational education? Is what we are doing now adequate? How can vocational education help solve the dropout problem? How can it solve the youth unemployment problems? What do business, industry, and labor want the schools to turn out in the way of raw material for the factories and the businesses of the 1970s and 1980s?

The delegates heard Seymour Wolfbein, Director of the Office of Manpower, Automation, and Training of the U.S. Department of Labor, predict that "the entire employment picture in the United States is going to change radically in the next ten years." He recommended a vocational education process which would "help peoples at all stages of educational development . . . to withstand the inevitable changes that are going to occur."

Edmund G. Brown, Governor of California, told the delegates how new methods may be used to solve community problems in California—problems related to transportation, institutions, sanitation, and other operations of government and industry. Scientists and engineers of the space age have "the ability to think in terms of new dimensions, to break down barriers, and to use technological skills to solve the problems of the everyday world. We have asked these talented men, who so far have had their minds on the stars, to use their skills on earth," the Governor said.

He also told the delegates that California has asked aerospace engineers to design systems that will "improve our data" on educational requirements. And the work of these engineers will have implications for vocational education, he said.

After listening to the speakers and taking extensive notes in their discussion sessions, the delegates were given an opportunity to summarize the conference events.

For some the conference was an initiation into a larger world of vocational education than they had previously experienced.

Others, familiar with the terms and ideas, occasionally drifted into restatements; yet, they were able to reflect independently on what they had seen and heard. As the conference report was being prepared, comments from those attending were beginning to be heard:

"Vocational education is being recognized in a form that is going to be more palatable to nonvocational educators."

"This is an important step in getting the state master plan for vocational education underway."

"I think the conference identified the interested and active persons in vocational education. As an industrial man, I was interested in the increased ability to communicate with people in vocational education."

"Vocational education is an area where management and labor can get together and better understand each other's feelings and problems."

In statements like these the delegates indicated the impact the conference had upon their own concepts of vocational education.

If the answers to our social problems are hard to formulate, the experience at the conference was nevertheless significant. The fabric of California vocational education is no longer what it was, nor does its image in the public eye reflect past stereotypes.

The principle of change is being accepted; the specifics of new action are yet to come.

There is no trade or employment but the young man following it may become a hero.
—Walt Whitman

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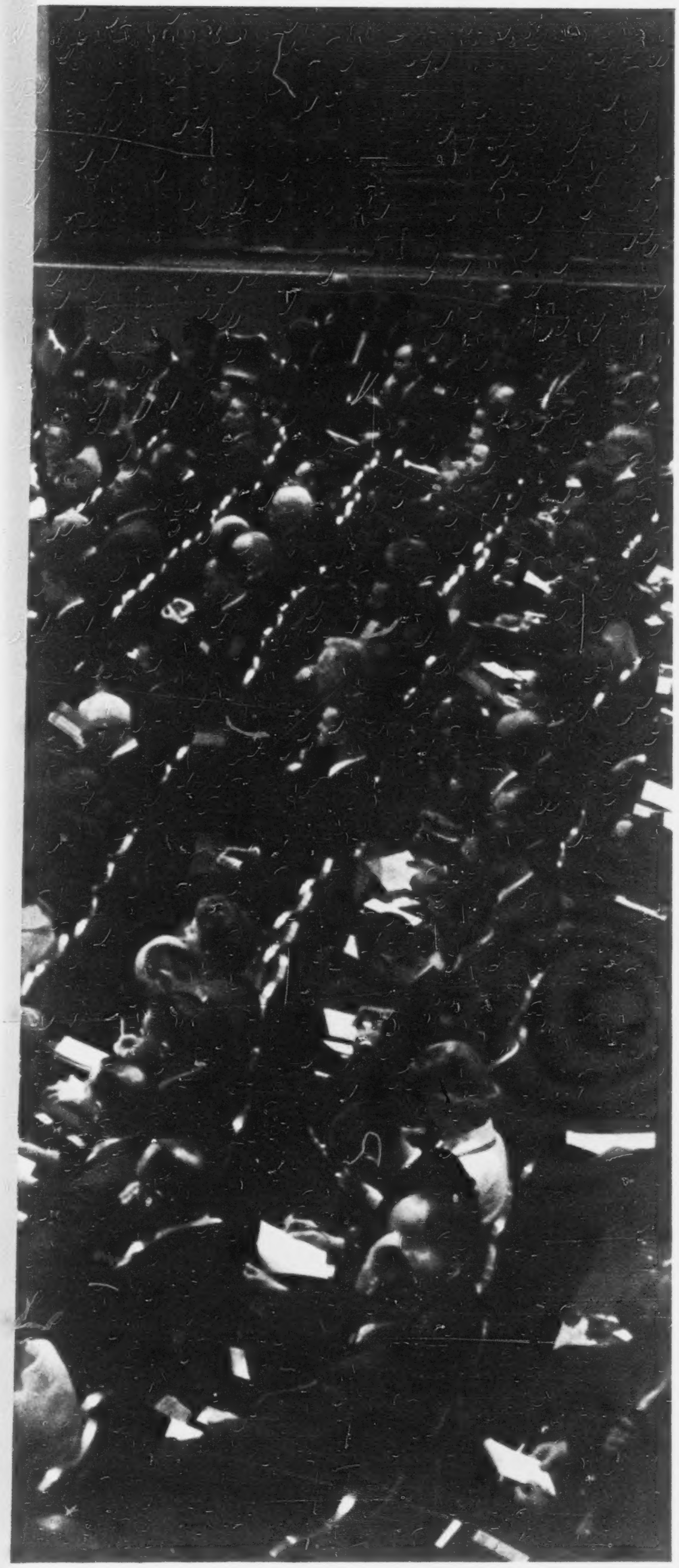


The Opening Session

DELEGATES TO THE CALIFORNIA State Conference on Vocational Education were a varied group. At the opening session of the conference, business executives rubbed shoulders with turret-lathe operators, and scientists settled themselves in seats next to teenaged members of the Future Farmers of America.

The mixture was not accidental. Invitations to participate in the conference purposely had been extended to a cross-section of the people of the state. As a means of ensuring new viewpoints and ideas, the conference planners had been especially careful to invite persons not fully familiar with the history of vocational education.

While delegates were finding their seats for the opening session, press representatives were interviewing key conference speakers. The interviews were focused on teenage employment problems. Seymour Wolfbein of the U.S. Department of Labor reminded newsmen that the percent of teenagers looking for work was well over twice that of the adult population—and that the percent of unemployed teenagers in racial minority groups was twice what it was for the average teenage figure.

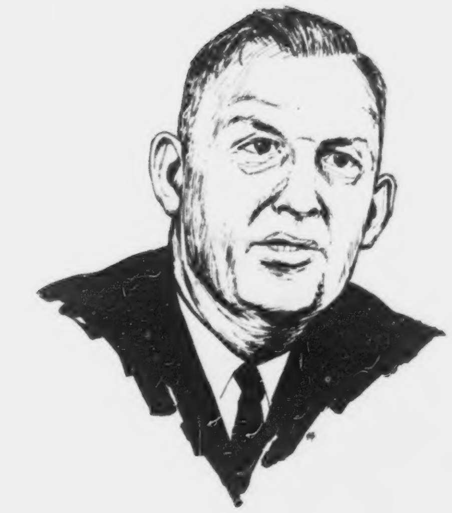
Superintendent of Public Instruction Max Rafferty, commenting to the press on outmoded high school vocational education courses, said that too many teenagers were "building birdcages and overhauling jalopies"; he called for more meaningful programs.

Soft-spoken Carl D. Perkins, the Kentucky Congressman who shepherded the Vocational Education Act of 1963 through the House of Representatives, praised California vocational education leadership but recommended more national concern with elementary and secondary education as a base for training in complex vocational skills.

After the interviews were completed, the guest speakers took their places on the podium of the conference hall, a high school ROTC color guard carried the flag down the aisle, and Dr. Rafferty rapped his gavel to open the first general session of the conference.

California's Superintendent of Public Instruction Max Rafferty addressed the opening session.

The Honorable Carl D. Perkins



Man's Relationshi

I AM DELIGHTED to have this opportunity to be in the magnificent state of California and am pleased to extend my greetings to your fine Governor, the Honorable Edmund G. Brown, and to the chairman and officers of your state conference. I wish to compliment Dr. Rafferty and the State Board of Education for pioneering in a conference of this nature. I well realize that you will not obtain all the answers that you are seeking, but you will make much progress. I am particularly pleased to have the opportunity to be in the home state of my friends and colleagues who work with me on the House Education and Labor Committee. I have heard many fine and remarkable things about California opportunities from Jimmy Roosevelt, George Brown, Gus Hawkins, and Alphonzo Bell, all four of whom as members of Congress served on the committee and contributed in writing the Vocational Education Act of 1963.

Before I get into this discussion, I want to pay tribute to Paul Sheats, Dean of the University Extension, University of California. He served on the vocational education panel, appointed by President Kennedy, which laid the foundation for the enactment of the Vocational Education Act of 1963. The legislation that was finally enacted embodied many of the panel's recommendations.

IN SPITE OF MAN'S remarkable facility to adjust to the whims of nature and the physical forces which constantly threaten his security, he finds it most difficult to adjust to the adversities of his own making. We are all aware of the rapidly changing economic conditions that have occurred, accelerated by the new technologies which scientific investigation and research have produced. Technology has enabled less than 10 percent of our population to provide enough food to feed the entire population, with gigantic surpluses that pose tremendous problems. Technological change and the ensuing automation of many economic activities have created job dislocations not only off the farm but in all types of industry in this country. The shift of employment from farm to city has placed great demands on our educational systems and institutions to assure our rural youth of an educational background which will be suitable to the world of work they will find upon graduation.

The 88th Congress has been often referred to as the "Education Congress," and well it might be, for it passed a number of monumental acts directed toward helping our educational system adjust man to his changing work environment.

The 88th Congress, in thinking of our higher educational needs, did not confine itself to bricks and mortar. In the amendments to the National Defense Education Act, the Student Loan Program was greatly expanded and its payment provisions liberalized. In addition, the so-called Antipoverty Bill, which was fashioned in the House Education and Labor Committee, created a work-study program for our colleges and universities.

The 88th Congress did not confine itself to the needs of higher education. The largest federal vocational assistance program in history was enacted in the form of the Vocational Education Act of 1963. For the first time, federal funds became available to assist state vocational education programs in the construction of buildings.

IN NOVEMBER, 1964, the U.S. Office of Education announced the allocation of 169 million dollars from federal funds to the states for operation of vocational education programs. California received the largest allotment—$11,283,295, a dramatic increase over the previous rate of federal contribution for vocational education, which was about $3,067,741. These funds may be used not only for construction, but also for the payment of teachers' salaries and the purchase of new equipment and materials. Written into the law were firm provisions to initiate a work-study program which will enable many deserving students to obtain the necessary financial assistance to attend vocational schools.

I commend your state for its leadership in vocational and technical education. Responsible California administrators made a substantial contribution to the hearings which it was my privilege to conduct in fashioning the Vocational Education Act of 1963. C. W.

to His Working Environment

Patrick, President of San Diego Junior College, appeared before our subcommittee as chairman of the Committee on Vocational-Technical Education of the California Junior College Association, and he gave the committee keen insight into problems of this particular phase of education in California.

I have also observed that California has an outstanding program. Within three months after Congress made funds available, California was fully operational under the provisions of the Vocational Education Act of 1963.

Because California was first in the nation to obtain approval for its state plan, at least 200 California school districts are now operating new or extended programs under the provisions of the act.

California's program of vocational education, long the most extensive in the United States, has been accomplished through dependence upon the comprehensive school principle, making vocational instruction a part of the total stream of public education, not something secured in special vocational or trade schools, which segregate boys and girls on the basis of their occupational choices.

You are going to be able to come up with new breakthroughs in vocational education at every level: high school, adult school, and junior college. The new funds have become "seed money" to many districts; they serve as incentives to experiment. I feel that you will come out of this conference with suggestions and recommendations that will benefit not only the state of California but the whole American educational system. This conference certainly will benefit labor and management and be of greatest benefit to dropouts.

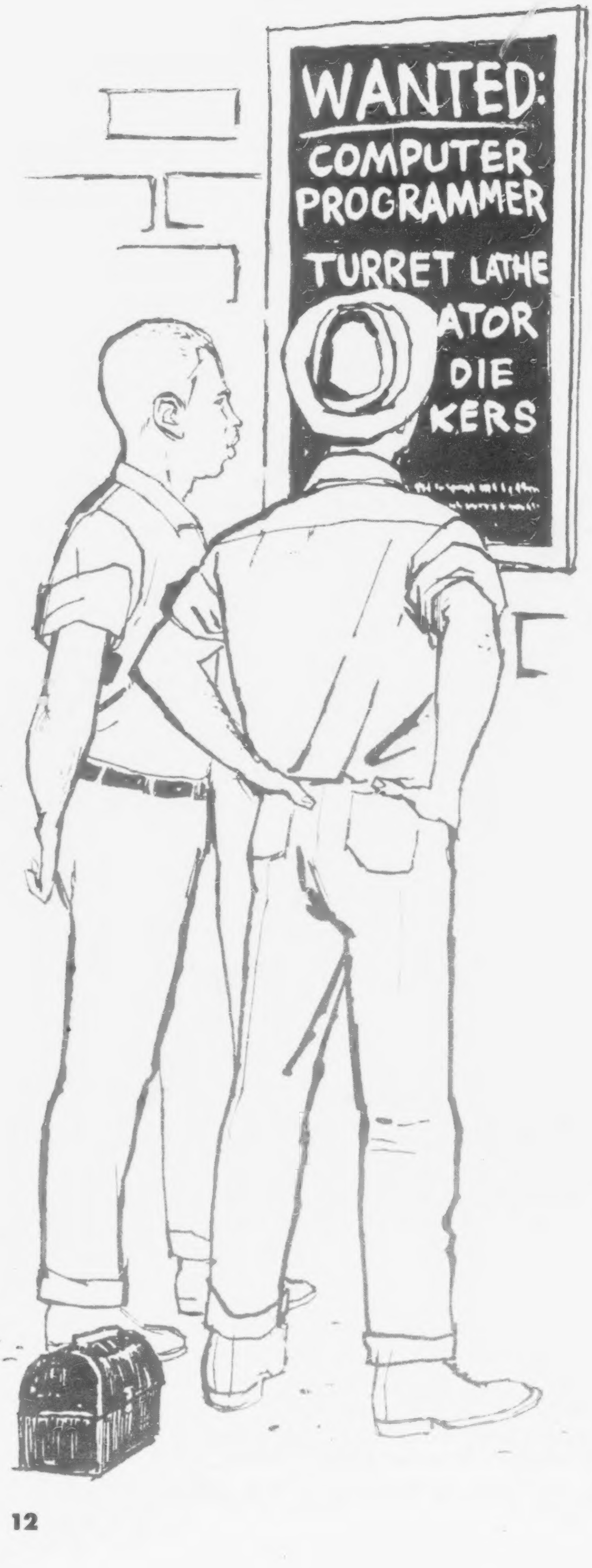
Congress has been aware of the challenge of this dropout problem. It has acted through a number of programs to help individuals suffering from lack of education and work. Under the Manpower Development and Training Act, unemployed and underemployed adults can receive subsistence payments while attending vocational education training courses designed to fit them for remunerative occupations. This program is designed to extend to the hard-core unemployed group in that it also permits instruction of those who lack the fundamentals in reading, writing, and mathematics, which are so necessary to secure the maximum benefit from vocational training courses.

As chairman of the General Subcommittee on Education, I have for many years conducted hearings on the adult basic education legislation, the Youth Opportunities Act, elementary-secondary education, and other legislation pending in the Congress; and I have often realized that we needed more progress in the area of vocational education legislation. There was something lacking—the old Vocational Education Act needed to be modernized and expanded because it did not cope with the problem of job orientation.

Carl D. Perkins, a member of the House of Representatives from eastern Kentucky, long has been active in legislation relating to education. He is the ranking Democratic member of the House Education and Labor Committee in the 89th Congress, and is chairman of that committee's Subcommittee on Education. He has introduced several significant education bills, among them the Impacted Areas bill of 1956 and the Adult Basic Education Act of 1961.

The work of Congressman Perkins and his committee, following the report of President Kennedy's Panel of Consultants on Vocational Education, produced the Vocational Education Act of 1963.

Congressman Perkins currently is active in developing legislation for federal aid to primary and secondary schools.



“Flexible skills an dividuals adjust t

Consider that today the gross national product of this country is in excess of $600 billion, that average earnings in manufacturing are in excess of $100 per week, that per capita income is in excess of $2,500 a year, and that civilian employment of this country has gone beyond the 70 million mark.

On the other hand, take into consideration that one-fifth of all American families live on less than $3,000 per year income and 12 percent live on an income of less than $2,000. Of this poorer group, 54 percent live in the cities and 16 percent on the farms; and about 30 percent are rural nonfarm residents, such as those in the great Appalachian area. We have an unemployment rate in this country of approximately 5 percent, but the present rate among our teenagers is 14 percent, and the rate for our Negro teenagers is approximately 30 percent. Some 750,000 to 800,000 teenagers are unemployed today.

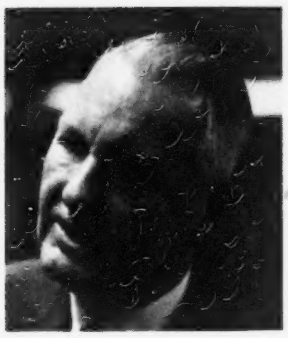
It speaks for itself that we must commence to take greater notice of the problem of unemployment than ever before. Your great state of California is the leader in trying to make the greatest contribution. I do not know of any other state that has made the effort that California has made to cope with the dropout problem and train high school youngsters who will otherwise enter the labor force with training inadequate for this space age. The greatest problem that we have in the Appalachian area that I come from is the lack of training opportunities. You have better facilities in this area. We lack the vocational education schools. We lack elementary-secondary teachers. We hope, during the present session of Congress, under the leadership of President Johnson, to pass an elementary-secondary education bill that will go a long way toward solving this basic problem.

We have already begun efforts to provide opportunities for those millions of adult citizens in our country who lack a sixth-grade education or its equivalent. The Adult Basic Education Act, which I had sponsored in two sessions of the Congress, was made a part of the so-called Antipoverty Bill and will provide federal funds to help the states establish regular programs of instruction for adults in basic educational skills.

This entire upgrading of educational opportunities will have a far-reaching effect on the unemployment toll. Slowly but surely these programs will provide individuals with the necessary education and training so that their flexible skills and knowledge will let them adjust to new job opportunities when economic changes such as automation affect their occupations.

The 88th Congress recognized that the educational processes do not stop at the school, and that adequate

nowledge will let in- ew job opportunities.”



library facilities throughout the nation are necessary to assure all citizens ready access to current information so necessary to keep pace with rapid changes occurring in our country as the result of new ideas and new concepts, not only in the field of science and mathematics, but also in all fields of learning.

The 88th Congress recognized that there is a close relationship between the problem of the dropout and the preschool education of children who have no financial means of obtaining books and preschool instruction. For this reason, in the community action provisions of the Antipoverty Bill, authorization was given for federal financial assistance to special programs of preschool education for youngsters so as to enable them to keep pace with academic requirements in the elementary schools. A successful student rarely becomes a dropout, according to much of the evidence presented to the committee on which it is my privilege to serve.

In the enactment of Public Law 88-164, the 88th Congress expanded assistance in the field of education and programs for handicapped children through grants to public and nonprofit institutions of higher learning to assist in training personnel to train teachers in the field of education of mentally retarded and other handicapped children. As is well known, the 87th Congress also enacted improvement in the laws for programs of education of such handicapped children.

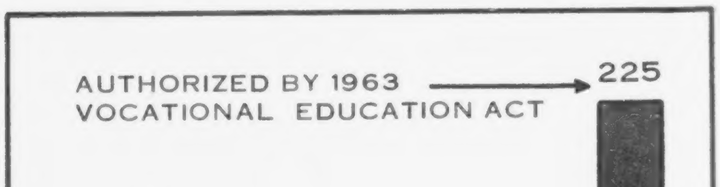
A new Nurses Training Act was made law, and legislation was enacted to increase the opportunities for the training of physicians, dentists, and professional health personnel so as to assure our communities of a more adequate supply of people trained in health.

As I have said, these legislative accomplishments indicate that there is some evidence to support those who would call the 88th Congress the “Education Congress.” However, I do not think that we should let these accomplishments blind us to the fact that we are a far cry from the point where we can provide every child and every adult in the nation with the education which our times demand.

EVEN THOUGH WE HAVE increased federal funds in the vocational education program from approximately $47 million to $159 million, we have not yet filled the need in our vocational schools: to assure every citizen of an opportunity for the training which our economy requires and which the individual needs to realize his own full potential.

However, as significant as these educational legislative achievements have been in meeting the pressing manpower problems of the 1960s, we have virtually ignored the foundation of our educational structure—the elementary and secondary systems. In the final analysis it is the soundness of man’s basic educational skills—the three R’s, if you please—which will determine his ability to adjust to the economic and technological forces which are constantly affecting his employment. In our modern age, as rapidly as technological changes are made, not only is it necessary for a man to continue his education as he works to keep abreast of the changes that are occurring in his job, but also it may be necessary for him to undergo retraining for an entirely new occupation more than once during his lifetime.

It becomes almost too obvious that an individual’s ability to continue his education during a working career or to embark upon a new course of training depends upon how well our elementary and secondary school systems have done the job initially. One of the greatest problems confronting the operation of the Manpower Development and Training Act and other



"The foundation of vocational education is jeopardized."

retraining programs has been reaching the hard core of our unemployed, because it consists of older workers who find their level of achievement in the basic education skills inadequate for the reading and mathematical requirements of present-day vocational training courses.

THE PROBLEMS CONFRONTING elementary and secondary education in California are particularly acute. Your state is confronted with the continuing rush of people to seek homes in California. Every day more than 1,600 people come to your state to live. In terms of classroom facilities alone, this may conservatively amount to 26 new classrooms each day. Adding complexity to the problem is the fact that students are entering classrooms in California equipped in varying degrees of competency to carry on academic work. The inadequacies of our elementary and secondary school systems in other states are reflected by the newcomers to the classroom here in your own state. The mobility of the American people today, where one out of every four families can be expected to make a move every year, illustrates the national proportions of the education problem and the great need for providing full educational opportunities in all areas of the nation.

There are many elementary and secondary schools throughout our nation which simply do not have the local financial resources to build the classrooms, to hire and to train the teachers, to provide adequate lunch programs, to purchase the best instructional equipment and aids, and to furnish suitable transportation and access to school facilities.

The foundation upon which we build successful vocational education programs, upon which colleges and universities may construct programs to satisfy the ever increasing demand for college-trained people, in fact the foundation upon which our concept of democracy and the full exercise of citizenship rests, is jeopardized by the fact that the opportunity for elementary and secondary education of the highest quality is not available in all areas of our country and in all school districts.

Just as it is easier to see the weaknesses in that part of the building or house which is above the ground, it has been easier for the Congress and educational groups in general to seek improvement of the superstructure of the educational system before examining the weaknesses in the foundation of the system—the elementary and secondary grade level where the fundamentals of an education are obtained.

It is plain to see that our national defense needs cannot be met without the scientists and technicians to keep pace with technological opportunities. It is plain to see that emphasis should be given to science, mathematics, and the strengthening of our college programs to produce this trained manpower. It is plain to see the relationship between high unemployment rates and the lack of vocational educational opportunities.

What is most difficult to see is the fact that an individual, armed with a solid basic education, has gained the ability to readily acquire new knowledge and new skills as the processes of automation and technology require him to adjust to new job changes and new job opportunities.

What is difficult to see is that the inability of many deserving students to obtain college admission may be based upon the lack of funds locally to provide that individual with the appropriate elementary and secondary education.

What is difficult to see may be the tremendous burden imposed upon our colleges and universities to spend additional funds and time in furnishing students with basic elementary and secondary education instruction which could have and should have been supplied at the elementary and secondary level.

LET ME CONCLUDE with the observation that great progress has been made on fashioning a good superstructure for our educational system. We must now give prompt attention to the urgent needs of its foundation—our elementary and secondary school system.

When I first came to the Congress back in 1949, the Senate overwhelmingly passed a bill which provided $300 million for facilities and teachers' salaries at the elementary and secondary level. But in the House we always lacked one vote of getting that needed piece of legislation out of the House Committee on Education and Labor.

I believe that because of pioneering conferences that are showing the way, the people of this great country are going to realize that we cannot afford to delay for another generation the passage of this greatly needed legislation.

The new legislation at the elementary and secondary levels will add one category to legislation which has been of tremendous help in impacted areas of defense installations. Another category will be diametrically opposite, taking into consideration families with low incomes and channeling money through your state offices—acting more or less as certifying agents—into these particular school districts. The legislation will really have as its purpose equalizing educational opportunities in the various states. We hope to reach all the people in the great metropolitan areas and in the rural sections of the country which have a low per capita income.

It is estimated that by 1970 we will have about 87 million people at work in this country and that approximately 58 million of the people now employed will need their skills upgraded. It is a great challenge, not only to the vocational educational leadership but also to all educators. I personally feel that we are on our way toward solving the dropout problem which contributes to youth unemployment. With the great technical schools and vocational schools that you have in this great state, there is no doubt in my mind that you will continue to pioneer in vocational education and set a pace for the nation to follow.

Needs of Our Labor Force in the Next Decade

IN 1965 WE ARE GOING to have a million more 18-year-olds than the year before. In this country, and especially in California, a million may not sound very big; but a million more 18-year-olds are a lot of people.

* * *

Age 18 happens to be the age when the American male makes his entry into the full-time labor force. This year more 18- and 19-year-olds will come into the labor force than did in the entire period from 1950 to date!

* * *

Because of the increase in the number of teen-agers, 1965 will see the largest number of dropouts in the history of the United States.

We have made studies of dropouts, and for the overwhelming majority of these kids you have a pretty good idea of what the score is back in the elementary grades in terms of attitudes and achievements. It seems to me that if we can do something at the elementary level about the development of attitudes, we can really go a long way toward solving this problem.

* * *

There is going to be a 40 percent increase this year in the number of people showing up at institutions of higher learning, knocking on the door and saying, "I want to get in." (If you have a youngster who wants to get into college, I have one piece of advice: "Buy a college!")

* * *

In reference to Dr. Rafferty's comments on opportunities in blue-collar work, I think that the best piece of vocational guidance that my daughter ever

Seymour Wolfbein

Deputy Manpower Administrator and Director, Office of Manpower, Automation, and Training, U.S. Department of Labor

DR. WOLFBEIN has been with the U.S. Department of Labor since 1942. His major areas of work have been and are with employment and unemployment developments, and occupational information for career guidance, as well as automation, training, and retraining. He is a Fellow of the American Statistical Association and the American Association for the Advancement of Science.

Excerpts have been taken from his informal remarks at the California State Conference on Vocational Education.

"This year will see th

COMMUNITY HIGH

got was back in the third grade. Her teacher made the class go around the block on which each child lived, making believe that they were census takers and finding out the occupation of each father.

I remember my daughter coming back; her eyeballs were twirling. She had been brought up in the typical white-collar milieu, but she had just discovered that the man with the biggest house and the greenest lawn —and for all I know, the biggest mortgage—was not the teacher, not the superintendent of schools, but the *plumber!*

* * *

Automation, cybernation, increasing output per manhour, reducing manhour requirements per unit of product—it all adds up to the same thing: You need less manpower to get out a given unit of production.

Here is an example, because every one of these things is happening right now: Last year we put out more cars than in 1955, the previous record year, but we did it with 18 percent fewer workers.

* * *

We will not have full employment in the United States unless we improve the quality and increase the quantity of vocational education programs.

* * *

In 1964 we had more people employed, they worked longer hours, the average factory wage was up to $103 a week. You name it; we made a record. But unemployment among young people went *up!*

In 1963 the unemployment rate among teen-agers was 250 percent of the national rate. By 1964 it was up to 285 percent of the national rate.

* * *

America today stands at the peak of her economic prosperity. If we can't take off from that vantage point, we're going to be in trouble.

* * *

Congress has given you a cornucopia of vocational education legislation, and there is more coming.

* * *

Many of you here helped get the Manpower Development and Training Act off the ground. We have been in business with it a little over two years. One out of every two trainees is a long-term unemployed worker. More than 28 percent of the trainees are Negro, a percent even greater than the proportion of Negroes among the unemployed. Two out of every three trainees got trained in the growth occupations—

largest number of dropouts”

the white-collar and skill occupations. The figures that we just got for 1964 showed an increase in the placement rate from about 70 percent to about 75 percent . . . *it can be done!*

* * *

The geography of employment opportunities in California is going to experience a substantial and significant change in the immediate years ahead and certainly in the next decade. The change will stem from the impact of advancing technology, the shifting composition of military demands, and—within a year or two—a major change in the composition of your immigration. You are not immune to what the rest of the nation has been experiencing in terms of geographic shifts. You have already seen it in the changing composition of military demands.

* * *

There will be an upending of occupational standings —practically a manpower revolution in the State of California. Substantial emphasis is going to be given in the nation, and especially in California, not only to the obvious professional white-color jobs, but also to that band of occupations we call “skilled persons” and the service occupations.

Service occupations are the second biggest growing band of job opportunities in this country. They include some of the relatively low-skilled, low-paying occupations—the personal-service occupations. Those of you in the vocational training will want to move into that one as quickly as possible.

* * *

The key word that ties all of this together is “change.” I challenge anyone in this audience to name one occupation which is immune to the impact of advancing technology, or which will be immune in the next few years.

* * *

We now have more people employed in the service-producing industries than in the goods-producing industries. You’re going to see that doubled in spades in California in the next few years.

* * *

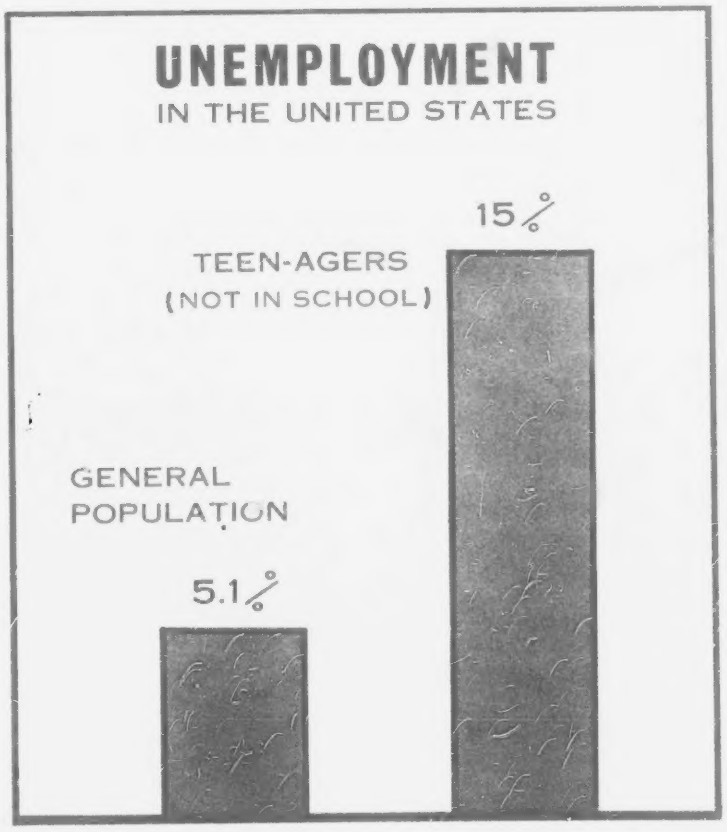
You pick up a newspaper and look at the want ads. The *words* weren’t even around a half-dozen years ago.

* * *

It’s no longer a neat, stable world where you can take young people and give them some lovely form of vocational education that will fit them snugly into a nice job slot. For better or for worse, it’s not that way.

* * *

Vocational education is the process which helps people at all stages of their educational development to withstand the inevitable changes that are going to occur in the relationship between what they learned and what they are going to be called upon to do in the world of work.



The Honorable Mary Conway Kohler

"Our economic growth in California
is not yet solid enough . . .
to preclude the roots and offshoots
of poverty which we see around us."

VOCATIONAL EDUCATION

You may recall that when Willie Sutton was asked, "Why do you rob banks?" he replied, "That's where the money is."

I don't know much about your money out here, but I do know a great deal about your power and potential. I know that you are the fastest-growing state in the country. I know that your labor force has increased most rapidly during the past ten years—35 percent compared to 14 percent in the nation as a whole. I know that one out of every three engineers in the United States works in California. I know that of all the research money ever spent in this country, 90 percent has been spent by living scientists, many of whom reside in California.

One might say that you never had it so good. In fact, the United States has never had it so good. Gone are the days of hard labor and drudgery so common when we were young. Were we meeting just 100 years ago, we would be discussing a new law restricting the working hours of children under fourteen years of age to ten hours a day. Look how far we have come in that area in a century.

The sudden great affluence experienced by our generation will probably never be repeated. Today we earn more, we spend more. We have over trillions in assets, and our wealth increases. Yet our economic growth is neither fast enough nor solid enough to preclude the roots and offshoots of poverty which choke at least one-fifth of our population.

Let me give you some examples. An estimated 16 million children are so handicapped by the influences of poverty that they have difficulty with minimal achievement in school. Sixteen-year-olds are three times more likely to leave school if their families have annual incomes under $5,000 than they are if the family income is $7,500 or more a year. Half of our young men fail to qualify for Selective Service; nearly one-fourth of them fail the Armed Forces mental test.

I believe that we are maintaining too high a rate of unemployment when it still hovers around 5 percent.

Mrs. Mary Conway Kohler is a native of San Francisco. For 15 years she was referee of the Superior Court of that city in its Juvenile Division. Earlier she was chief probation officer of the court.

Presently Mrs. Kohler is a consultant on youth problems to the U. S. Department of Labor, to the Mayor's Povery Council of New York and to numerous foundations and governmental agencies.

As consultant to the Ford Foundation, Mrs. Kohler spent five months in Europe in 1959 studying methods used by European courts to combat juvenile delinquency. As consultant to the Taconic Foundation, she has studied the problems of vocational education and unemployed youth. Her findings have been reported both in technical and in popular publications.

A WAY OF LIFE

In New York, 10 percent of our relief roll, our welfare department case loads, are people who cannot earn enough to support their families.

Private enterprise can no longer support the work force it did in the past. During the period from 1943 to 1953, it absorbed 84 percent of the people entering the civilian labor force. In addition, it created new jobs to accommodate workers disemployed by agriculture or industry. But from 1953 to 1964, private enterprise absorbed only 52 percent of those entering the civilian labor force.

THIS DRASTIC DROP was due to stepped-up mechanization and automation and to rapid population growth. The population bulge created by the increased birth rate during the war years is now in collision with automation, which has decreased the unskilled or entry jobs which the young have normally had.

There is little reassurance in a 5 percent unemployment rate—one in 20 out of a job—when certain sectors of our population have one in three-and-a-half out of jobs, which is the case of young Negro males. In the middle of the depression years, only one in four was out of work, and yet you know how all hell broke loose in those days, until the situation was remedied.

The hardest hit adults, of course, are the uneducated. Sixty percent of the unemployed today never finished high school, and 40 percent never finished grade school. The young and unskilled, however, are the hardest hit of all. This is due, in part, to the fact that men are often doing boys' jobs.

Recently, I was talking with the president of a large steel company. I was trying to persuade him to restructure jobs, in order to let the entry workers—in this instance, school dropouts—get a start in the work world. He said, "I can't do this. I haven't added one new employee in the last ten years. I feel lucky to hang onto my men and give them boys' jobs."

The big reason behind the youth employment problem is that we neglect the average child. We do well with the extremes—the gifted and the mentally retarded. Our bright, talented young people usually pass gracefully through the growing-up process, moving from school to school to college. And remarkable work is done with the mind of the child that is not fully developed. Thanks to their parents and to the great push that our late President gave to the mental health program, our mentally retarded children receive good attention.

The average child, however, tends to be passed over. We have perhaps doubled the holding power in our high schools and tripled the going college rate. But we forget to count those who drop out of college, or those who leave before they finish high school.

In some areas of the country, improvement has been made. I was pleased to notice, for example, that the Los Angeles Schriber study shows that the rate of high school retention is 77 percent. In New York, it is only 63 percent, while in Michigan it is 91 percent.

I am not reassured by these figures, however, because I know of schools—in New York and probably in Los Angeles—where only 14 percent of the youngsters who start high school ever finish. And I can take

"The delinquent child is also the child who has failed at school."

you to another school, a block away from one of these, where 98 percent complete their school work.

It is important to note that a significant rate of difference shows up in the retention rate between students in the academic course and those in the vocational course. In the United States as a whole, about 65 percent of the academic course students finish, while only 51 percent of those in vocational studies complete their schooling.

The saddest fact of all, in my judgment, is that 27 percent of the seniors in all the vocational schools drop out, while only 3 percent of the seniors in academic classes quit.

THESE DROPOUTS are education's failure, and they constitute a source of great social ill in this country. National studies show that 95 percent of our delinquent seventeen-year-olds are dropouts. Notice that I did not say that 95 percent of the dropouts are delinquents; that is quite different. The point is that the delinquent child is also the child who has failed in school.

This fact is serious, because school is really the only growing-up process we have ever established which is orderly from childhood to adulthood. School provides the way to work, and, if it is interrupted, or if our way of life keeps it from being orderly, we are handicapping large numbers of children, particularly those who are of normal intelligence.

I maintain that we are, in fact, handicapping these children by our lack of foresight. We are permitting vast numbers of young people of normal mentality to drop out of school. These unfortunate youngsters are the casualties of our society. These are the youngsters whom we are failing. They, like you and me, were born into a society that judges man by the work he does. Thus, these youngsters develop their own self-image on the basis of the work they do or do not do.

To do nothing is to be nothing, and to be nothing for very long is to become nothing forever.

I brought with me a recording of a youth who typifies a great number of our educational failures. This young fellow came every day to a clubroom, paid his ten cents, stretched himself out, and stared up at the ceiling. One worker asked, "Jay, how come you pay your dime and just lie around here? Why don't you play checkers or talk to the other guys or something?" Jay answered, "Look, man, this is the only place in the world they let me be, where they don't bug me. I hang on the corner or in the park, and the cops boot me. I go home, and they throw me out. They don't let me in the school no more. I hang in the hallway, and the janitor yells. I sit on the stoop, and the neighbors bitch. I get a little peace here, so just leave me be."

This is the futility of life for the youngsters we are casting out. And we are casting them out of vocational education programs, when we fail to reach them.

I recall one tragic example of a young man in a prison I visited. This fellow looked about fourteen, though he was actually twenty-two. He had been in and out of correctional schools and prisons all his life. He struck my attention, because, as he ran a hand printing press in the industrial shop, his eyes sparkled. He seemed to have a love of life, unlike those around him, and he was obviously enjoying every minute of the work he was doing. I talked with him and discovered that, though he was due to leave prison, he was resisting it. He simply did not want to go.

"Why?" I inquired.

"How can you ask?" he replied. "Because I have a job here."

"There are jobs outside," I said, knowing full well that the printing unions would never let him in, and that no employer would take him with his record.

"Look, ma'am," he answered, "what union is going to let me in? And besides, there's no job like this; except for me this press wouldn't work."

WE SHOULD NOT FORGET that every one of us must have the kind of job that "except for me, it wouldn't work." This is vital to the dignity and productivity of us all.

Yet how seldom this happens to the unskilled young person today. We are casting him out as a derelict, a derelict on the shores of affluence. This is the tragic situation of the youngsters who get out of school without the occupation or skill necessary to make them employable.

Our unfortunate tendency in America is to put the blame on someone—in this case, on the personal characteristics of those who fail, because they are unskilled and unemployed. This is at once unjust and unrealistic. The plight of these unhappy young people reflects a far deeper problem.

In my judgment, the only solution to this problem is an absolute revolution in education, particularly in vocational education. This collision between the population bulge and automation, this lack of consciousness of the needs of every human being and this inability to meet his needs, reminds me very much of the paradoxical age which Dickens describes in the opening lines of *A Tale of Two Cities*:

> It was the best of times, it was the worst of times, it was the age of wisdom, it was the age of foolishness, it was the epoch of belief, it was the epoch of incredulity, it was the season of light, it was the season of darkness, it was the spring of hope, it was the winter of despair.

Although Dickens was talking about the French Revolution, he could as easily have been setting the stage for a thesis on the kind of revolution you and I must bring about—particularly you educators, you industrialists, and very much you men of labor. We must all be revolutionists, for we all share the responsibility for improving the lot of our young people. Only by improving our overall economic performance and by developing a new way of life are we going to break down the basic road blocks to a good way of life for all.

What can we do in this revolution? We must develop a new concept of education. We must have more schooling, longer schooling, and a very different kind of schooling.

School dropouts have taught us much. In fact, they may well be the salvation of American education, for they point up a sober and vital fact: Our schools are failing to prepare our culturally deprived or culturally different children for useful roles in our society.

Hopefully, these dropouts will force us to find a way to educate them. I would say to teachers that the first step is to accept the fact that we *can* educate these youngsters. We must get rid of the defeatist attitude typified by the principal of a poor school I visited in New York. When I asked him, "What would you do with this sorry scheme of things?" he replied, "I would make these children just like me. I came up the hard way—my parents were immigrants—I made it."

The fact is that these children are not us; they are themselves, and we must take them as such. We must concentrate on them as individuals and search out their innumerable virtues. For the creativity of some of these nonlearners in vocational schools is unbelievable. You see this quickly, if you watch them on the playground or in other circumstances that are not school imposed.

Incidentally, it is more than happenstance that where money goes into education, failures go down. For example, considering the per capita income of a state and the amount spent for public education, Utah does quite well. It has the fewest draft rejectees and the fewest illiterates of any state in the country.

CALIFORNIA FARES WELL, too. Your state is fourth in the nation in educational effort, that is, in what you spend in relation to your capacity to spend. This effort certainly contributes significantly to your low school dropout rate.

Essentially, we have two major tasks: one, to prevent our educational casualties; two, to salvage our educational failures. To do this, education has to become the central endeavor of every community in the country. To do this, the educational attack must be a different one, and that means that we must use every innovation which can be brought to bear.

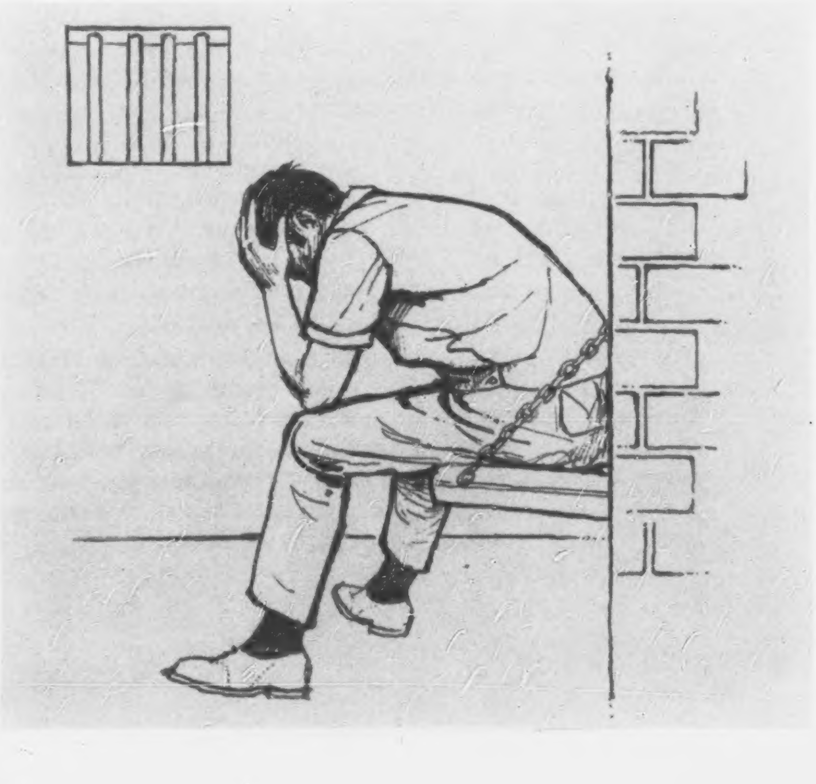
I would plead chiefly for innovation. Seek out every possible creative teacher, find a way to get that teacher recognized, find a way to let him be free to create. Validate these innovations, so that you have the courage to institutionalize them and spread them far and wide.

Accept the fact that almost every child can be educated to do some job. In New York, which suffers many handicaps unknown to you Californians, we took a group of the lowest functioning school dropouts and began a program of training them for work. But before we could begin any vocational education, we had to teach these youngsters to read, because reading retardation is the universal characteristic of the school failure. We used all sorts of teaching methods, some that I had never heard of before. We found no instance where we couldn't make a breakthrough. With one child, it would be the method of color reading. With another child, another method would work. But we always made a breakthrough. This is the kind of a tryout we must have.

We must also begin to tie curriculum to the world of work, and we must do this very early in a child's life. I have been particularly interested in your own California invention of the Richmond Plan, in which you took four subjects—math, science, English, and lab—and directed the work of each day and each week around the same subject. Essentially, this was a pre-engineering technology curriculum. I was impressed by the fact that those youngsters who were failures in the straight academic course were getting this technology course.

As I questioned these young people, even without a scientific validation of the process, I realized something important. Not only was the study program built around strong interest, it was also built around the same subject matter. The students would say, "I can be an A student now, because I get it. If I don't get it in the first class, I get it in the second or the third; I never lose anything any more. I used to lose it, and it was lost forever."

This is just one small technique; there are many more, which you know better than I. What I plead for is that we begin to tie some of these teaching techniques to the world of work. We must create in these youngsters, as early as possible, an experience and an appreciation of work and of their part in the world. Some examples I saw in Russia this summer illustrate my point. In their shop courses, fourth graders made all the toys for the kindergartens and nurseries, and they kept them in repair as well. Obviously, the school



"We have to tie curriculum to th

directors knew they could get better toys manufactured by their industries, but they were intent on having these fourth graders feel a sense of involvement and responsibility in relation to the kindergartens and nurseries. The children responded accordingly, as one might expect.

At the University of Moscow, I saw a group of eighth graders visiting the physics lab. They were turning over the oscilloscopes to find the marks they had left there when they made the instruments in their eighth grade shop courses. These were the oscilloscopes used by the physicists developing the Sputniks, and it is obvious that these youngsters had been made to feel a sense of real involvement and importance in the world of work.

Russia's singleness of purpose gets under your skin after the first day, but the strong group sense, oriented toward the Russian schoolchild, contrasts sadly with our own system. Their children are their privileged class. Why have we had such blinders on for so long? Why do we push our children aside, saying, "We'll get to you later, we'll get to you later," until it is finally too late to salvage them?

This process of developing respect for the world of work must begin very early in a child's life. This is difficult, however, because the average way of urban community life provides little or no way for children to learn work values at home. Therefore, we must begin teaching work values in the very first grade of school. We must get real work into the school experience at the earliest opportunity.

I would plead with labor to take a new look at schools: See what you are preventing youngsters from doing because it can be done by a working man. Possibly, these fine workers could be the guides for young children and give them chores under their supervision. I am tired of having nothing considered a child's job because it might be done by some union member. The time has come when we must all give. I do not ask a father to yield up a job so that child can learn, but I do ask him to reconstruct some of these jobs in order to provide opportunity for a child to learn.

We must have very different guidance operating early in a child's life, if we are going to have a vocation and trade way of life for him. We must stop concentrating only on the academic endeavor, which never lets one use his hands, as being the only way of life. We must teach our children from experience, not just train them from an occupational handbook.

We must encourage the type of counseling that I had the pleasure of participating in, in Everett, Massachusetts. There, representatives of management and labor in different areas met with 40 groups of ten youngsters each on a year-round basis. This was a preparation-for-employment program, and I saw, firsthand, how very useful it was to child and adult alike. This kind of counseling is a must—counseling where there is a true coalition among management and labor and education to better the lot of young people going into vocational training.

CHURCHES ARE ANOTHER SOURCE of very good organized work guidance. I was interested to see that, in England, the Church of England has made this sort of counseling one of its major volunteer efforts.

We are going to have to reconstruct many of our jobs. In doing so, we are going to confront some very sacred cows of management and labor. We must pull employed men who have the capacity for better and more highly skilled work into higher level jobs, in order to open the way for the less skilled. We must do the same with our professions. How can we beg constantly for more teachers, when we let teachers in the classroom do so many things that assistants and subprofessionals can do? And, at the same time, we have unemployed people who could be trained in subprofessional work. It makes no sense. It is incredible that we go on the same way year after year without challenging our methods.

I think that the new Economic Opportunity bill provides a tremendous chance to train the subprofessional, as well as to train the poor and handicapped to help themselves. But to use this opportunity, we must give up some of our very sacred ideas about the requirements of being a professional. I am confident, however, that once we do it, we will like it. I lived through those days in the first world war when nurses' aides were first talked about, and I can remember how shocking it was that anyone but a trained nurse could ever touch a bedpan. That day is long gone, and the registered nurse is glad of it, I can assure you.

Perhaps most important, we must begin a process of continuing education in a very different way from what we do now, particularly in vocational education. We must not force a child to decide positively in the ninth grade that he will become a carpenter or a plumber. This is the practice in many of our schools. On the other hand, we cannot let the child forestall

vorld of work.”

learning an occupation forever, because if he leaves school, it is forever in the life of that child.

I am strongly in favor of what I call the California way, or, particularly, the Los Angeles way, of deferring the real vocational and technical education to the junior college, if possible. Yet, I have great disdain for a large group of intelligent people who let youngsters stop school without having any place to go, simply because they are untrained.

I think we have a chance under the vocational education legislation of 1963 to develop area schools, or what I call skill centers. These are places where students can go for short- or long-term, cafeteria-type training, as needed.

In addition, we should consider the so-called sandwich program of education so popular in England and in Europe. Under this system, the student has apprenticeship training in school for a while, then goes out to work, back to school and out to work again. He is always moving up the ladder.

WE MIGHT THINK, too, about developing an expanded social security system to permit time off or shorter hours for training purposes.

We certainly must devise some system in the nation as a whole for a constant appraisal and reappraisal of talent and the means of fitting this talent into an upgrading process of training.

We must use the chances we have to work with the job corps of the Neighborhood Youth Corps, provided for under the Economic Opportunities Act. The job training camps set up under this program, incidentally, are largely being contracted out to private industry. This, I think, represents a great challenge. Let industry get in there and see what the problems of educating the hard core of our youth really are. This is their responsibility and, perhaps, if they take over these camps, these training centers, we will get some innovations and a new kind of sympathetic understanding of the youth employment problem.

We have known for many years that work-study and cooperative education pay off. Yet this system still has not grown as it should have in the United States. It overlooks the slower learner; it passes over the average child. Too often, its benefits are reaped by the student who presents no job placement problem. All this must change.

I especially wanted to come here, because I knew that industry, labor, and education were participants in this conference. This three-way coalition is precisely what we need for the educational revolution I have been talking about. And I don’t mean it as it exists in these advisory committees. I don’t mean committees that meet once a year. I do mean a deep involvement of these outsiders—labor and industry—in the problems of education. In short, why not loan the best of industry to the schools as teachers? Why not loan experienced teachers to industry?

Instead of trying to indoctrinate our young people with fixed methods, our aim should be to help them develop decent attitudes toward the work and skills which will make them adaptable to many different jobs and many different ways of life. To indoctrinate youth is to ensure early obsolescence. To help these youth develop skills, good attitudes and habits of mind, to provide them with knowledge and understanding, is to ensure their continuing capacity for change and growth. We must begin this process early, and we must never let it stop. There can be no graduation in this new way of life.

You, a coalition of management, labor, and education, can and must work together to achieve this aim. For if you succeed, then we will have a system that provides for its own continuous renewal. We will have the leadership necessary to sustain a great civilization suffering serious challenge.

I like to think of you Californians, because I love your state and because always, always, you try first in the nation. I think of you fondly in terms of a California story told to me by your own Kenyon Scudder.

It is the story of two youngsters going home from a correctional school. One had a family unable to read or write. He had sent them a message saying that if they didn’t want him back, they should just forget him, and he’d stay on the train. But if they did want him, they could put a ribbon on the apple tree by the railroad track, and he’d see it and get off at the station. As the train neared the apple tree, however, he just didn’t have the courage to look. So he turned to his companion and said, “Is there a ribbon on that tree?” His friend answered, “It’s covered with ribbons.”

I like to think of you covering with ribbons of opportunity the tree of life for the least of your children and all of your children.

65 CALIFORNIA STATE VOCATIONAL EDUCATION Report

Vocational Education in a

IT IS INDEED a great honor—and also a great opportunity—to appear here today at this statewide conference on vocational education as a representative of the United State Office of Education. Commissioner Francis Keppel sends warm greetings. He very much regrets that he cannot stand here himself. I believe most of you know that the President's message on vocational education is due in Congress today. The Commissioner has been working very closely with the White House Staff and the President and others in the preparation of this message.

THE IDEA OF THIS CONFERENCE is dynamic. It was most impressive to me to read the statement of its general purpose as "the establishment of directions and dimensions for a far-reaching program of occupational preparation adequate to meet the current and future needs of California's total work force." The conference announcement also assumed a universal interest in vocational education in the State of California—an interest that has been demonstrated in preceeding conference sessions. I think this amounts to a public recognition in the State of California that vocational education is in fact everybody's business—of industry, business, labor education and all of the citizenry of this state and other states. As we see it from a national level, we feel we need the same spirit and attitude in all 54 governmental jurisdictions with which the Office of Education deals.

But the fact that vocational education might be everybody's business doesn't mean that it is nobody's business. Somebody has to do the work. I am going to suggest who might be doing what and a little bit of how.

Sometimes, it seems, we get so involved in legislation, in rules and regulations, in programs and in administrative decisions that we tend to lose sight of the real goal: to help provide better tomorrows for all the people of this country.

At the federal level—and no doubt at the state and local levels as well—it does worlds of good once in a while to stop and take a few deep breaths, and to take a good look at the young people who will be deeply affected all their lives by the decisions being made now—by the kind of thinking being done here these two days in Los Angeles.

A few months ago, President Johnson said:

> If we are learning anything from our experience, we are learning that it is time for us to go to work, and the first work of our society is education. We must rest our faith and our hopes for America on education—not for some, but education for all.

A few months before that, Mr. Johnson had spoken of "dramatic evidence of our commitment to education as the key to our social and economic and technological and moral progress . . . a reaffirmation of our conviction that education is the cornerstone of our freedom."

That last statement was made in the occasion of the President's signing into law the Vocational Education Act of 1963.

Today—a little more than a year later—the U.S. Office of Education, in cooperation with vocational educators and state officials all over the country, is in

Walter M. Arnold

Assistant U.S. Commissioner of Education, Vocational Education Services, U.S. Office of Education, Washington, D.C.

DR. ARNOLD administers the Vocational Education Act of 1963, as well as the vocational training portions of the Area Redevelopment Act of 1961 and the Manpower Development and Training Act of 1962. He has directed vocational education at the local and state levels, and has worked in industry. Among other accomplishments, he is a journeyman machinist.

Dynamic Economy

the midst of creating reality from these strong precepts and from the Congressional mandate which inspired them. As the great new programs under the act go into orderly operation in the several states, we have been rededicating ourselves to vocational education's overriding purpose: to make occupational training opportunities available to everyone who needs and wants them.

I THOUGHT I MIGHT DIGRESS here for a moment, to say just a few words about what is happening elsewhere in the country in this regard. I have had the unusual opportunity of visiting nearly all of the states in the last three years—some of them quite a number of times. Revolutionary things are happening. It is the greatest revelation that I have experienced in many years in vocational education. Every state on the East Coast, starting with Maine and including the mountain states in the Appalachian region and going all the way to Florida, is involved in a massive construction program and program development in vocational and technical education.

Not all of the states are that active. In my home state of Pennsylvania, I would guess that the unemployment rate has never been less than 6 or 7 percent in this century. Pennsylvania was once the leading agricultural state of this country and the leading manufacturing state, but it is no longer. Today, there is scarcely one program of vocational or technical education in the public schools of Pennsylvania that operates at the post-secondary level.

You could relate that to a growing economy with the attraction of industry.

Now I will give you another side of the picture. In 1957 North Carolina started a skill-development program through what they called Industrial Education Centers. Last year they opened the last of the 20 centers they had planned, and they now have some satellites. Their goal was, by 1965, to produce every year 23,000 graduates who were skilled in occupations of all kinds. The state industrial development group sold outside North Carolina industry, and inside industries, on the idea that "we will produce the skill for you to do whatever it is you need to do."

I think it is significant that in the calendar year 1963 North Carolina ranked *fifth* in this country in absolute dollar increase of capital investment in new and expanded industry and business. In the most recent five-year period, the total dollar amount devoted to industrial expansion North Carolina rose from $168 million to $294 million. That is not an accident. That is not a coincidence. You have only to talk to the new industries that have come in there to establish the fact that they moved to North Carolina because skilled workers were available there.

I visited another eastern state recently and met with the Governor, his Economic Development Commission, the State Department of Education, and the vocational education leadership of the state. That Economic Development Commission is a very sophisticated group. They have been in California, meeting with business and industrial people up and down the state—not to proselyte your industry, but to talk to California industry about its expansion plans and what this particular eastern state has to offer in the way of people and skills. You can see just how keen the competition is in today's dynamic economy.

More and more states are learning that education and skill and development of technical knowledge is linked with industrial progress and the general business progress of a state.

The *Atlantic Monthly* is running a series of articles on the best high schools in the United States. There is an article in the January, 1965, issue on Allentown High School in Pennsylvania. It is entitled "Education for Industry," and it reveals what the secondary school can do for, and do with, industry in a live-wire community, and something of how you get it done. We have some friends in the country who say, "You can't do this at the secondary level." Our answer is to show them where and how it is being done. Another high school featured in the Atlantic series is

“The states and the federal governmen

Dunbar High School, the outstanding Chicago vocational school. East High School, in Denver, Colorado, is another; Newton High School, of Newton, Massachusetts, is still another.

Mrs. Kohler commented in her speech to this conference about the poor record of the vocational schools of this country. There are outstanding high school vocational programs in this country. What Mrs. Kohler did not clarify was that the high schools she talked about were largely large-city vocational high schools that have been “dumping grounds” for years and years. Principals of those “dumping ground” schools never have had the right to select the students for an occupational training program. They take whoever is sent there. If you have administered vocational education programs, you know very well that you cannot conduct a quality program if you have to take all persons who appear at the door. The programs aren't designed that way. It won't work.

One large city now is embarking on a very interesting program supported by a $55 million bond issue—to expand vocational education in 16 comprehensive high schools and to update and improve two vocational technical high schools, one for boys and one for girls. They are now in the early stages of developing what they call “regional vocational technical centers” in the city. These centers will provide the shops and laboratories for several of the high schools in each section of the city. The students receive their related instruction in their “home” high school and get their practical training in the so-called regional school.

Here is a large city, greatly alarmed, like many, about the number of dropouts—people with no skill and very little chance of getting employment. This big city is bent, not on arguing about “either-or,” but on using everything it has available to accomplish its goals.

Among our own profession across the country, we do too much arguing about “either or else.” If everybody did everything he could, utilizing every resource in this country, we wouldn't even touch the problem today. So it seems rather futile to stand around and argue whether you should do it this way or that way. It may very well be that a city like Los Angeles, for example, needs to promote vocational education all ways concurrently.

Within the past few months, the U.S. Office of Education has made some major changes in the Vocational and Technical Education Division. These changes are designed to make more and better services available to the states in connection with the new act. The accent now is on the future—not the past.

There is a need to commit ourselves totally to a new concept of vocational education—to new directions. It must be possible for anyone to become qualified for gainful employment—no matter what handicaps he carries with him from his growth environment into the world of work. The other side of this coin is that the entire economy will be helped by reaping the benefits of advancing technology.

The Congress has opened a number of new doors to us as a means of helping to accomplish these goals. The regulations which have been approved and issued spell out the implementation of the new legislation. They have made it possible for the states to develop new state plans and to take advantage of the opportunities that are now available.

Thirty of these state plans have now (January 12, 1965) been approved by the Commissioner. Forty have been submitted, and the rest are expected to be approved almost any time. I think it is to the credit of Wesley P. Smith, the Vocational Education Section in the Department of Education, and the State Superintendent of Public Instruction, that California was the first state to have its plan approved. To show you how Mr. Smith operated, the President signed the appropriation bill on Friday, September 18, and the California State Plan was approved on Monday, September 21. So California isn't losing any time.

The total allotment for California under this new act for fiscal 1965 is about $7,750,000. In the 1964 fiscal year, California's federal allotment from all vocational education acts was about $3,250,000. And, incidentally, California overmatched that by 7 to 1 from state and local funds. This is interesting in light of the fact that the national overmatching figure is about 4.31 to 1. It shows the commitment of California to vocational education.

Here is a figure that might startle you a little: In this current fiscal year, more than three times that amount of federal money is available to California—$11,305,000 of federal money! You can see what could lie ahead in the way of a dynamic movement if California continues to overmatch this sum at the rate of 7 to 1.

This will give you some idea of the government's greater participation in assisting the states to get this job done. California will have an additional $440,000 to use for experimental work on a work-study program. The money is provided under the new law to

share the responsibility.”

help keep needy students in school until they complete their vocational education programs. This will be a very interesting development.

Back to the economy. If you want to read something fascinating, see the November 1964, issue of *Fortune* magazine, which features an article called, “Knowledge: The Biggest Industry of Them All.” What would you estimate is invested in what *Fortune* calls “the knowledge business” in this country? It comes to nearly $200 billion for this last calendar year!

In 1958 the investment in the knowledge industry in the United States was greater than the combined gross national product of England, France, and West Germany. This gives some idea of the philosophy in this country about the investment in education. It bears out, I think, what Dr. Schultz of Chicago University has said—that investment in human capital has a far greater return than investment in material capital. We are just beginning to get a full appreciation of this.

A quotation from the *Fortune* article might be of interest:

> An obvious reason nations and individuals crave knowledge is that it can directly elevate their productivity and prosperity. Another reason is less obvious. A static society can exchange with relatively little effort its small store of knowledge, but a rapidly changing society needs to organize a vast daily flood of communication, most of which is not specifically calculated to advance any productive process. This stream of communication is an essential part of the modern environment; without it civilization would cease to breathe.

I think this emphasizes how the knowledge industry—which includes vocational and technical education, of course—is a great factor.

It is obvious that education in this country, both formal and informal, is totally involved in the dynamic economy which is burgeoning from one end of this land to the other. Vocational education’s contribution to the development of skill and technical knowledge is a great asset to a dynamic economy. In this day and age, the total effort of the nation bears a direct ratio to its investment in human resources. Hence, vocational education is often referred to, correctly, as one of America’s greatest resources.

There is certainly general agreement among educators and others concerned with the nation’s young people that modern life holds few berths for the uneducated and the poorly prepared. Yet, vocational education has simply been inaccessible to too many people. A sampling study of vocational education offerings in six states, found that only 7 percent of secondary school students, or persons of secondary school age, had an opportunity for vocational education leading to gainful employment.

The states and the federal government share the responsibility to continue the fight to eliminate undereducation and poor preparation from the economic scene by helping young people to become educated and adequately prepared to the best of their abilities in those fields where job opportunities will be available to them.

Vocational and technical education programs cannot provide solutions to all the problems of our society. That is obvious. But they can provide some vital armament—skill and technical know-how—in the battle against unemployment, juvenile delinquency, school dropouts, and many other social and economic problems.

The new Vocational Education Act is really new. It does not represent merely a regrouping of educational forces within the vocational and technical fields. The Act recognizes that a complex technology cannot be expected to stand still. The world of 2015 will be as different from this one as 1965 is from the time when our great-grandfathers were young. This is no time to be looking backward with yearning to the days of the little red schoolhouse—or even to the days of the big red brick schoolhouse. It is time to look ahead—to make a determination about what vocational education should be like, and must be like, in a dynamic economy.

A total, balanced program of vocational education should be available to every community in the United States. This is a necessary goal for the nation if such training is to be readily accessible to all. One of the most revealing things that came from the study of the President’s Panel of Consultants on Vocational Education was that nowhere in this country—in any state or in any community—could you find a total, balanced program of vocational education. This is a program—actually, a variety of programs—in a community or a state that meets the needs of all the people whom we have been identifying at this conference: the school

"The new Vocational

dropouts, the young person of less-than-average ability, the displaced older person, the person who is concerned about changing his occupation or more nearly capitalizing on all of his talents and aptitudes. You name them and a total, balanced vocational education program should cope with them.

We accepted the directives of previous Congressional acts—the Smith-Hughes and George-Barden acts—as our responsibility and said, "We'll do this. Whatever else needs to be done, we hope somebody else gets it done."

Well, the fact of the matter is, nobody got it done. I believe that the greatest gap in the public education system today is the lack of appropriate programs for persons of less-than-average ability.

In a meeting in Oklahoma, attended by the Governor of that state, I used the "less than average" expression. When he got up to speak, he turned to me and said, "If you don't mind, I'd like to point out, as a politician, that there are no less-than-average people in Oklahoma." He expressed the idea more accurately than I did. He said, "What we say in Oklahoma is that every citizen in this state has some talent, some ability, some aptitude, some interest. In this economy there is a place for him, and it is our job to help bring the two together."

I submit that to you as part of a total, balanced program in vocational education.

UNLESS THE EDUCATORS of this country—educational administrators, school superintendents, principals of schools—begin to address themselves to something more than our single line of approach to secondary school education, we are going to continue to have serious social and economic problems in this country. In the big cities you can see how serious these problems are, and there is no evidence right now that we are solving them. Whatever is being done now is being done at a slower pace than the pace at which the problems are accumulating.

James Bryant Conant heartily commends the states of California and New York for their unquestioned leadership in the fields of higher education and elementary and secondary education respectively. In his recent book, *Shaping Educational Policy*, Dr. Conant emphasizes the differences in educational progress between California and New York.

On page 81 he says:

> The two most populous states in the Union warrant a close examination by anyone interested in educational policy. They present both similarities and contrast. . . . In terms of the organization of public education, the contrast . . . is . . . sufficient to make a foreign student of our educational chaos wonder which state is to be taken as typical. The answer, of course, is neither . . . each state may be considered as furnishing something *approaching* an ideal solution to *part* of a total problem. California has led the way in providing a rational approach to educational policy making beyond the high school. And for generations, New York has provided a model of how to organize and employ the power of the state to promote excellence in the locally controlled public schools.

On page 96, Dr. Conant states:

> . . . California stands out as the one state in the Union that has developed and put into operation a master plan. Whether one approves of the plan (as I do) or not is quite beside the point. What is encouraging about it, and makes that state worthy of study, is the fact that a long-range educational policy has been established.

Dr. Conant is right, of course. California can achieve the same eminence in the field of vocational and technical education which it now enjoys in higher education. The answer is to have a kind of master plan—to develop a long-range policy. And, I believe, that is one of the chief purposes of this two-day conference. Dr. Conant also places great emphasis on the need for strengthening the state departments of education. As you know, Dr. Conant has spent a good bit of time overseas and has learned a good deal about the European educational system which is engrossing to some of our people. Dr. Conant believes—and I think most of us would subscribe to that belief—that in America, in light of our history and our philosophy, our educational hope and progress rests with the individual states. He advocates very strongly the strengthening of our state departments of education in many different ways. He gets so bold as to point out those states that are at the other end of the scale, and he doesn't hesitate to mention names. So if you are interested in what doesn't look good, you can read his book.

IT SHOULD BE APPARENT that a master plan for vocational education must be based on the requirement of a total, balanced program. The natural question is: "What is a total, balanced program of vocational education?"

Generally speaking, a total, balanced program is one that is tailored to all of the requirements of communities and defined areas, yet does not lose sight of the patterns emerging in the state and national labor market. Such a program not only must make room for all the individuals it expects to serve, it must also reflect the advent and departure of businesses and industries and the flow of workers to and from a state, a region, or a metropolitan labor market.

Education Act is really new."

It would be a rare vocational educator or administrator in the state of California who would not say that there is much to be done in California in vocational and technical education, and that the communities of the state, and the state as a whole, can borrow from the best developments in other states on the road to achieving a total, balanced program.

If program planning is to be realistic, it must be based upon known facts—facts concerning employment opportunities, types and numbers of persons needing vocational and technical education, present facilities through which persons receive training, what employers desire in the way of preemployment preparation of the workers they hire, and the opportunities they seek for their workers who may need updated and upgraded training.

All of these facts must be assembled and organized, and conclusions must be drawn from them concerning the best types of programs to meet the needs of a given state. If this is done thoroughly, it takes the form of a master plan for vocational and technical education. It will suggest needed changes in present programs, the numbers and types of new programs required, the types of institutions in which they should appropriately be located, and the geographical location of such institutions. It will indicate the sequence of development of programs with respect to program emphasis and program location. When a new program is proposed, it will be appraised against the criteria of the master plan as to whether it is needed, how large it should be, where it should preferably be located, and in what type of institution it should be offered. A good master plan will save costly errors and make for effectiveness in the development and operation of programs. It will be kept up to date through revision when significant changes occur in the labor market, in industrial development, and in other aspects of the economy that have bearing on vocational education.

THE SPACE AGE also demands that the workers of today and tomorrow be literate as well as willing and skilled. A lot more time and effort must be expended in making sure that people entering the new world of work have the basic tools.

If any state in the Union can do all of this California can. O. Henry said that "Californians are a race of people; they are not merely inhabitants of a State." He wrote that in 1909, but it's probably still true. California is blessed with talented leadership in education and vocational technical education. I would like to commend Wesley P. Smith, State Director of Vocational Education and his staff, especially, on their very progressive action and their remarkable progress in a time of very difficult administration.

In behalf of myself and the Office of Education, I would like to say you have our very best wishes and a sincere offer on our part to give any assistance we can provide in the implementation of new and expanded programs in vocational and technical education in your dynamic economy.

Now Hear Youth

BURNS

MEMBERS OF THE CONFERENCE paused in their deliberations on the future of vocational education to hear firsthand from six young men and women who had benefited from successful vocational education programs of previous years. All were proud of the vocational education that had guided them to success. The following excerpts were taken from their remarks to the conference delegates.

JAMES E. BURNS, *Monrovia*

Mr. Burns was active in the vocational agriculture program of his high school. Later he received an Associate in Arts degree in ornamental horticulture. Presently, he is a salesman for a major nursery, and he is enrolled part time in ornamental horticulture at the Pomona campus of California State Polytechnic College. He is married and the father of four children.

"I grew up in the San Fernando Valley on a very small farm. I grew various types of vegetables and chrysanthemums, which I sold from house to house and on corners where there was traffic. When I entered senior high school, I majored in the field of agriculture. In my senior year I was local and regional Future Farmer president. These experiences, along with chapter functions, helped me very much in my leadership training. I learned to work with and to influence people, a most valuable asset in my occupation. After graduation I studied in junior college for two years in the field of ornamental horticulture; then I left school to provide for my new family. Now I am an outside salesman for a top wholesale nursery and have won five sales contests in the past six years.

"In the future I plan to finish at California State Polytechnic College and look forward to sales management or a business of my own.

"I will close with this thought—let's do more for vocational training than we are doing at present."

MRS. SHARON COBB, *San Francisco*

Mrs. Cobb, who majored in history and stenography in high school, graduated in 1963. Presently, she is employed by the San Francisco Housing Authority, where she has worked as housing clerk, secretary, and stenographic adviser.

"My appreciation of stenographic training I received in school is sincere and great, for it made it possible for me to earn enough while in school to complete my high school education without money worries, and it provided me with the skills necessary for getting and holding a good job after I graduated.

"In my senior year of high school I made an appointment to see our vocational counselor regarding part-time employment. Shortly after my visit, I received a notice from him that the San Francisco Housing Authority was starting a part-time work program for students who lived in public housing. Since I lived in public housing with my mother and family, my grades were above average, and I was able to type well, I was able to qualify.

"In my new job my working hours were from 1 p.m. to 5 p.m., and I went to school in the morning. My typing, shorthand, business English, business math, office training, and switchboard training were all invaluable to me on my new job. In school I had been taught to type as if I were being paid for it, so that the transition to typing on the job was easy.

"I now realize why my teacher placed so much stress on accuracy. When I am typing leases, they must be absolutely correct. I can truthfully say that through the business education courses I took as a student in high school, it was easier to get and hold a job when I entered the business world. I feel confident of the future."

BONNIE HELLQUIST, *Anaheim*

Miss Hellquist enrolled in a junior college vocational nursing course after graduation from high school in 1963, and she is presently employed as a licensed vocational nurse.

"I am employed in a 60-bed hospital with one nursing station governing three wards—medical, surgical, and pediatrics. I am a treatment nurse for all three wards. My vocational training has given me a solid background in all these fields. In junior college the program was arranged so that we had a half-day of classroom orientation to nursing procedures and treatments; then the very next half-day we had actual experience at an accredited hospital, so we learned while it was fresh in our minds.

"Some of the duties that I execute at the hospital are assisting doctors with physical examinations, diagnostic tests, and major dressing changes. Also I administer medications, including narcotics, and perform general nursing care.

COBB

HELLQUIST

NEWMAN

TALBOT

TOLY

"I feel that anything done for humanity is eternal and will last from one generation to the next. I am deeply grateful to you leaders of the past and present in vocational education, whose foresight and concern made training in vocational nursing available to me."

MRS. KAY NEWMAN, *Long Beach*

Mrs. Newman took homemaking courses in high school and earned her Associate in Arts degree before she married.

"My career as a homemaker began only a year and a half ago, but my training for the job of homemaking dates back to my junior and senior years in high school. Some of the learning experiences in those homemaking education courses should be required of all students, including the boys. One significant part of this preparation included learning to understand and care for children.

"Using the budgeting knowledge I had gained in my homemaking class, my fiancé and I had the opportunity to plan for our marriage. Because we learned to plan ahead, we soon will be moving into our new home, with no debts behind to worry us.

"Knowledge gained in housing, home furnishings, and household equipment has been particularly valuable to me. For Christmas I received a new sewing machine from my husband, and I sometimes have the feeling that he has had a few handy-hint courses himself! Learning the proper way to prepare food was a favorite part of my homemaking training, a part that I use three times a day.

"My schooling isn't over yet. I would like to add more units to my Associate in Arts degree. And what courses do you think I'll be taking? Homemaking education, of course."

SERGE B. TALBOT, *San Jose*

Mr. Talbot majored in merchandising in high school. He fulfilled the work experience requirement for his major by working part time in the same shoe store where he is now manager. In addition to his full-time job, Mr. Talbot attends evening college classes.

"My present place in the business community had its roots in the distributive education program. Through the practical approach of correlating school and work, I was able to find that hard-to-get first job. Vocational education for me meant immediate identification. At the age of sixteen I was already launched as a specialist. I was a retailer and liked it. When I graduated from school in 1963, I already had found my niche. Active participation in the high school Distributive Education Club was a proving ground for assuming early responsibility.

"Distributive education can be divided into three major categories—classroom instruction, on-the-job training, and extracurricular activities. Each was a key part in my success.

"I should give special credit to my distributive education instructors and the dual role they played as classroom teachers and job coordinators."

NORMAN TOLY, *Livermore*

Mr. Toly is a designer-draftsman working on nonnuclear research and development phases of the nuclear weapons program. He became a journeyman machinist after graduation from high school, and he attained his present position through vocational training in junior college.

"I had always had a desire to draw, to build and to see things built, but the high school that I attended had no drafting courses. After graduation I went to work at various jobs until an opportunity of working as a machinist was available.

"As a journeyman machinist, I was working with drawings and fabrication, but I felt that as a draftsman I could achieve a more satisfying job and higher pay. Junior college offered a mechanical drafting course, which appealed to me. Later I elected to enroll in the full-time, two-year day course in industrial drafting. I transferred to the graveyard shift at work and started the course in 1956. When I graduated, I left the machinist's trade and was employed as a draftsman at a higher rate of pay.

"My present employer is alert and progressive in realizing the necessity of education. He provides classes during work to keep us informed on the latest drafting methods. One such method deals with automatic program tooling, in which a punched tape controls a machine tool which produces a part.

"I wish to thank Oakland City College and all who made it possible—from the instructors, to the industry advisory committees, to the taxpayers—for the opportunity they gave me to pursue a course that has proved successful for me."

The Need for

I AGREE WITH John B. Lawson, of Philco's Aeronutronic Division, that "the provocative question today is not whether we need continuing education. It is, what are we going to do with those who refuse it?" Adult dropouts should now be as much a matter of national concern as public school dropouts because the mature adults are stewards of future history or nonhistory. This statement has never been made of any previous generation. A readiness to continue learning is the key to manpower development.

Every major document on national policy in the past ten years has underscored the fact that continuing education is vital to economic and social progress. From the report of the Commission on National Goals to the latest statement on national policy from the Committee for Economic Development, the emphatic consensus is that continuing education can no longer be considered frosting on the cake. Far from being a peripheral segment of the total educational enterprise, it is now essential to national growth and survival.

But what does the record show?

The latest national study of participation in adult education was done a couple of years ago by the National Opinion Research Center at the University of Chicago. It showed that approximately 25 million or one in five adult Americans were active participants in organized educational activities. I suggest that we should view with mild panic a participation rate approximately equal to the paid attendance at major league baseball games during a single season.

Sir Eric Ashby, in the *Saturday Review* for November 21, 1964, says that "administrators must conceal their bright ideas." The administrator, he says, must feed the bright idea into an organization at quite a low level—and watch it percolate slowly upward. With luck, it will come to his desk months later for approval, and he must greet it "with the pleased surprise which parents exhibit when their children show them what Santa Claus has brought them for Christmas."

The proposal which I am about to make violates this stratagem in at least two respects: (1) it involves a policy decision which others, not I, can make; (2) by choosing this time and place for its advocacy, I am gambling on osmosis rather than on percolation. Hopefully, this idea may be diffused through this knowledgeable and influential assembly. My proposal will not put another 100 million adult Americans into the classroom, but, by using the carrot rather than the stick, it would induce additional millions to serve their own and the national interest by picking up their option on lifelong learning.

I PROPOSE THAT we move as rapidly as possible to build into the 40-hour work week eight hours of paid time for voluntary participation in organized programs of continuing education. The paid time off for continuing education could be either in job-related or liberally oriented programs. The latter would include a wide range of learning opportunities in the arts and humanities, in the social sciences, and in acquiring the skills necessary for community leadership and participation. In case any fast-draw critics label this "a radical new idea," I should like to point out that the conservative government of nineteenth century England did something very similar in providing for the broad liberal education—at Cambridge and Oxford—of working class youth, who otherwise would never have been able to lead *or* participate. And that nation has realized vast dividends on its initial investment.

I realize that various unions have already negotiated "sabbaticals" or other time-off plans into their contracts. More efforts to spread the work will certainly follow. But time off is not enough, and management might well contribute support for continuing education in the interest of increasing employability and productivity.

My proposal faces up to the fact that without a national program of continuing education supported with resources at least comparable to those now being earmarked for elementary, secondary, and higher education, we cannot move toward the Great Society. And certainly little progress can be made to improve decision-making on major questions of public policy without national priority for continuing education.

To flesh out the program and to inventory the existing and additional resources which would be required, I recommend the creation of a National Commission

Paul H. Sheats

Continuing Education

on Continuing Education. This commission should be appointed by the President of the United States, and its assignments should include the determination of federal legislation and support needed to achieve the program's objectives.

The urgency of this recommendation derives from two closely related results of the knowledge explosion: (1) what Professor Neil Chamberlain of Yale University calls the steady downgrading of the occupational competence of all who are employed; and (2) the changing requirements of the work force as a result of automation cybernetics.

Professor Chamberlain points out that we are still operating as though a person can acquire, in the first 20 years or so of his life, all the formal education he will need the remaining 40 years of his career.

BUT THE CLOCK STARTS running down the moment a young man or woman steps from the commencement platform, be it college or high school. The real dispossessed of the world—and this daily becomes more true in the modern, industrially mature nations—are the uneducated and the untrained. But, as Dr. Chamberlain points out, "There is only a tenuous difference between the uneducated and the undereducated, the untrained and the undertrained." Once we admit that in most occupations knowledge runs ahead of the pace at which a worker can keep up with it, we are forced to seek continuing education throughout our lives, as the only hedge against individual obsolescence.

The engineer who graduated today has a "half-life" of about only ten years. By this we mean that half of what he learned at the point of graduation will be obsolete in a decade. Moreover, half of what that same engineer will need to know ten years from now is not yet discovered. I have seen similar computations applied to the legal profession, which is given a half-life of 15 years; and in the physical sciences, it may be closer than that.

A second major consequence of the knowledge explosion results from the impact of automation and cybernetics on the work force.

Before this impact is felt to its fullest extent, we need desperately to wipe out the major strongholds of American poverty. In this new war on poverty, the target group is some 38 million Americans, about one-fifth of the nation. The poorest 20 percent received 4.7 percent of the total national income. And the official unemployment figures do not accurately reflect the magnitude of the problem:

- 5.5 percent are unemployed.
- 4 percent have sought full-time employment but have found only part-time jobs.
- An estimated 5.5 percent have withdrawn from the labor market.
- Military and space expenditures have provided employment directly or indirectly for some 12 to 15 million.

An expansion, therefore, of training and retraining programs for dropouts and unemployed will be effective only if the economy can produce enough new

PAUL H. SHEATS was a member of the President's Panel of Consultants on Vocational Education, whose report in late 1962 spearheaded the development of the Vocational Education Act of 1963. Dr. Sheats is Dean of University of California Extension, which has 5,900 separate programs of continuing education throughout the state. He has worked in adult education for nearly 30 years and is best known for his efforts to weld all segments of continuing education into a unified network of adult learning institutions.

For a period during World War II, Dr. Sheats was head of the Adult Education Section of the U.S. Office of War Information. He has been with the University of California since 1946, and Dean of Extension since 1958.

"Hopefully, by the time the cybernetic revolution has had its full impact upon our economy, continuing education—job-related or not—will be as much

jobs to ensure placement both of the trained and the retrained.

The most serious paradox of all lies in the fact that a substantial portion of the population is subsisting below the poverty line at a time when the production potential exists to supply all needed goods and services.

Ralph Bellman, a computer scientist of the Rand Corporation, was quoted in the *Chicago Daily News*, as follows:

> Industrial automation has reached the point of no return: the pace will increase astronomically in the next decade.
>
> Two percent of the population—by implication the 2 percent of the upper administrative and executive levels—will in the discernible future be able to produce all the goods and services needed to feed, clothe, and run our society with the aid of machines.

Even if this prediction is off by 20 percent, the changes which will be required in our attitudes and behavior will be revolutionary. One of the dangers to our democracy—if we do not deliberately broaden participation in lifelong learning—will be a growing elitism. There will be the plebians who "finished" their years of schooling while, on the other hand, continuing education will serve as the key club for the Great Society.

IT WILL TAKE SOMETHING much more radical than the proposal I have made here this morning to tool up for a society in which our present work force is reduced by 75 to 98 percent. But, in a nation moving inexorably toward manpower requirements of higher and higher competency, with full employment more and more difficult to maintain, the case for devoting 20 percent of the work week to continuing education rests on solid ground. As the educational secretary of the American Chemical Society said in a letter to a member of my staff on December 10, 1964, "Technical obsolescence is an ever more serious problem, and lifelong continuing education is the only known solution."

By implementing my recommendations, there can be, at one stroke, updating and upgrading of the work force, as well as at least a temporary increase in the number of available jobs in both the industrial and public sectors of the economy. It is self-evident that there will still be a large pool of unemployed, particularly in the seventeen-to-twenty-one group and among those now existing below the poverty level.

Obviously, the unemployed will have to be served through the Vocational Education Act of 1963 and the Economic Opportunity Act of 1964. This group is so large that these acts must be extended and expanded to deal with this problem, but even federal aid will not be enough unless there is a sizable expansion of jobs in the public sector. My own view is that the most helpful method of creating jobs is to establish, at subprofessional levels, cadres of aides in the teaching profession, in social welfare, and in health and law enforcement agencies where the gap between need and available services is most evident.

Most of my argument thus far has been directed toward economic justification of the proposal which I have made. But my recommendation also included participation on paid work time in educational programs which are not job related. This really gets into the problem of the changing nature of work.

Donald L. Garrity, head of the San Francisco State College's Department of Sociology, said recently:

> Time has tended to be calculated in terms of working and time free from work. Time will continue to be calculated in terms of work. But the work period will be one of the least important of the day, week, or career. There's a difference between recreation—traditionally a process of relaxation with more work in mind—and leisure, which isn't necessarily oriented toward work and which can create its own values of personal worth and satisfaction.

What are these values of personal worth and satisfaction to be derived from this new leisure? Have not many of us in this room been so centrally concerned with the achievement of full employment and retraining of the work force that we have failed to recognize that our problem goes far beyond the development of technical vocational and even professional competency? The need to broaden the scope of our schooling—to take this master plan approach—is difficult to discuss without indulging in generalities such as "self-fulfillment" and "integrity." Certainly this need grows

n accepted part of normal adult behavior as breathing.”

more important as the body of knowledge in every field deepens and becomes more complex.

I think the importance of including the humanities in continuing education is best demonstrated by the tale of the old Danish farmer who took his teen-age son into town to enroll him in the Danish Folk School, which stressed the liberalizing studies.

“Will he learn here how to make better butter?” the farmer asked, clearly dubious about the value of the Folk School experience.

“No,” was the reply, “but, when he returns home, he will never again be satisfied to make anything less than the *best* butter.”

John Gardner, of the Carnegie Corporation, in his recent book, *Self-Renewal,* puts the challenge even more explicitly when he says:

> Exploration of the full range of his own potentialities is not something that the self-renewing man leaves to the chances of life. It is something he pursues systematically, or at least avidly, to the end of his days. And by potentialities I mean not just skills, but the full range of his capacities for sensing, wondering, learning, understanding, loving, and aspiring.

With the prospect of increased leisure for larger and larger segments of the population, our tendency to fragment the categories of academic disciplines must be reversed. We must begin to put the pieces back together meaningfully. As a small step in this direction, I am proposing that we counterbalance the overwhelming emphasis in most of our institutions upon vocational and job-related programs of continuing education by permitting, in fact *encouraging,* the use of paid work time for participation in programs in the areas of public affairs and the liberal arts.

Any doubts as to the need for expanded public affairs programs were dispelled last month when *Time* (December 25, 1964, p. 15) reported the results of a recent University of Michigan Survey Research Center study, showing that 28 percent of the sample questioned did not know if there is a communist government in China now, and 39 percent did not know of the existence of the Nationalist Chinese government.

Hopefully, by the time the cybernetic revolution has had its full impact upon our economy, continuing education—whether job related or not—will be as much an accepted part of normal adult behavior as breathing.

First, however, we must understand (and modify) the extent to which we are still enslaved by our Puritan inheritance, which equates work with godliness and nonwork with sin. In fact, the enslavement came long before the Puritans arrived. We can go back to the code of Hammurabi, written 4,000 years ago, when craftsmen and peasants were denied the benefits of literacy, and when crafts could be transmitted only by direct instruction under an apprenticeship system. C. Hartley Grattan, in his book *In Quest of Knowledge,* says:

> The failure to apply the new literacy to the crafts . . . led to the slowing down of the rate of technological change . . . and accounts in part for the unprogressive nature of these societies.

In 1855, Frederick A. P. Barnard, President of the University of Alabama, wrote with blindest certainty that a crafts society and its characteristic apprenticeship system was so permanent a feature of American life that vocationalism would never intrude itself upon institutions of formal learning.

The passage of the Morrill Act of 1862 began a reversal of this trend, but if you had participated in the meetings of the President's Panel of Consultants in Vocational Education, as I did, you would know that the deep cleavages which began far back in our cultural history have not completely disappeared today. The vocational educator often feels alienated from his academic colleagues; the academician often demonstrates snobbishness toward educational programs which prepare man for work.

This bit of history is interesting only insofar as we can learn something from it. Certainly, the intervening 4,000 years, which have brought us into a new age of science, should not lead us to create a new elite of those who know versus those who do not know, to a growing schism between the wise and the ignorant, or to a fragmentation of the total educational task into learning for the job and learning for self-realization. Blinders may help to win a horse race, but I doubt considerably whether tunnel vision is an asset to educational statesmanship.

“Problem-solving in its highest form is an

I remember vividly a conference which University of California Extension conducted at the Alumni Center at Lake Tahoe in 1961 on “The Creative Person.” It was attended by about 75 presidents of corporations, foundations, and major institutions throughout the nation. Their interest in this invitational meeting derived from the fact that members of the staff of the Institute of Personality Assessment and Research, on the Berkeley campus of the University, were scheduled to summarize and report upon some five years of research on creativity. At the particular session I have in mind, the late Professor John E. Arnold of Stanford University reported on a study of 209 top-level scientists and engineers from some 20 research and developments groups on the West Coast. The significant point in this study, for our purposes, was that of this sample 84 percent were continuing to study in their major fields, and of this group, 85 percent, or nine out of every ten of these highly motivated adults were also studying outside their main field.

In the discussion period following Professor Arnold’s talk, one of the delegates asked if these data meant that company policy should include time off and tuition reimbursement for employee participation in educational programs which were not job related. Professor Arnold said he meant exactly that, to which his questioner responded, “This is socialism.”

Whether it is socialism or not—and I happen to think that it is not—since 1961 the increase in the number of continuing education programs subsidized by tuition reimbursement by companies is phenomenal. This is also true in the field of trade union education, as we can testify from our own experience.

The results of the certificate program begun by the University of California Extension on the Los Angeles campus, in cooperation with the Los Angeles County Federation of Labor, are uniformly impressive. An average enrollment of 225 in a single semester is drawn from just three southern California counties. These people come from 74 different unions, and in 90 percent of the cases, the union is paying the full fee for 160 hours of class work consisting of such courses as Urban Problems, Understanding the Economy, Government and Politics in America, and Public Opinion in a Mass Society.

THE NEED TO AVOID equating adult education with retraining is nowhere better demonstrated than in these labor studies. A very few of these enrollees leave labor for management. At least one-quarter of them move up to assume roles of greater responsibility both officially within the union and in community organizational work. Many return to attend courses after they have completed the certificate program. When an extension staff member attended a recent meeting, where 60 or 70 union members came together, he was deeply gratified to observe that the ones who knew how to speak most effectively were men who had taken extension’s course in Communication and the Power of Words.

Encouragement of self-development and advancement of personal creativity are good and adequate reasons for broadening the spectrum of educational opportunity which my proposal would provide. But there is a further reason, which stems from social urgency rather than from personal need. Problem-solving in its highest form is an educational process. The application of rational methods of inquiry and discussion and awareness of the consequences of alternative solutions require the mastery of skills which can best be learned off the job and in educational programs which lean heavily on the liberal arts and the social sciences.

The speed with which we move forward in the war on poverty, in the equalization of opportunity, in the reduction of racial tension, and in the improvement of urban life bears a direct relationship to the energy and ingenuity with which our educational institutions provide the information base on which decision-making and problem-solving can be improved. Even the most competent technically trained work force cannot produce a good life or ensure the survival of the human race.

The present generation of adults—not college graduates of some future time—must choose wisely now and deal rationally with the fateful decisions which confront us. Technology cannot supply this requirement. Only expanded programs of continuing education in the liberal and fine arts, contributing to self-realization, increased civic competence, and public responsibility will ensure our continuance as a free people.

I have been an administrator for too many years not to realize that there will be objections to the proposal which I have made. Moreover, there will need to be some careful planning on how best to utilize our existing facilities and when and how expansion should take place. The proposed National Commission on Continuing Education, like the vocational education panel, can draw upon expertise already available as it develops detailed plans and specifications.

Before I conclude, let me identify and answer, in part at least, a few of the objections which will certainly be made. There is, of course, the question of cost—cost to industry in terms of released time, cost to the community in terms of expanding the facilities of

ducational process.”

continuing education which will be needed, and cost to the individual who participates—depending on whether or not the educational services are supplied on a tuition-free basis. Such problems may be difficult, but they are certainly resolvable. A nation which is solving the problems of conquering outer space certainly can solve the relatively minor logistical problems of establishing a national program of continuing education on work time. We have already made tremendous progress in the direction I am recommending.

COMPANY-FINANCED SCHOOLING is probably the fastest-growing form of adult education in the United States today. It may be a matter of tuition reimbursement; it may take the form of establishing in-plant programs or alternating a work-study cycle. Several months ago, it was reported that General Electric alone spends $45 million a year to support a curriculum of thousands of courses at dozens of plants across the country, with a student body of 35,000. Although industrial expenditures on continuing education are predominantly in favor of job-related programs, *Time* magazine estimated in its December 18, 1964, issue that $25 million annually is being channeled by business into cultural courses and programs.

California already has the base on which to build expanded facilities and programs. For over a century, it has had publicly supported continuing education in its public schools, which, along with the junior colleges, state colleges, and university and agricultural extensions, today collectively serve millions of the state's adults with programs ranging from basic adult education to cryogenic technology.

The kinds of issues with which we are dealing in our effort to narrow this gap between the generation of new knowledge and its dissemination and application are really amazing. They have nothing to do with the traditional view of adult education as remedial. The public attitude which seems to still consider adult education as a peripheral part of our education is missing entirely what the knowledge explosion is doing to program planning in all of our institutions.

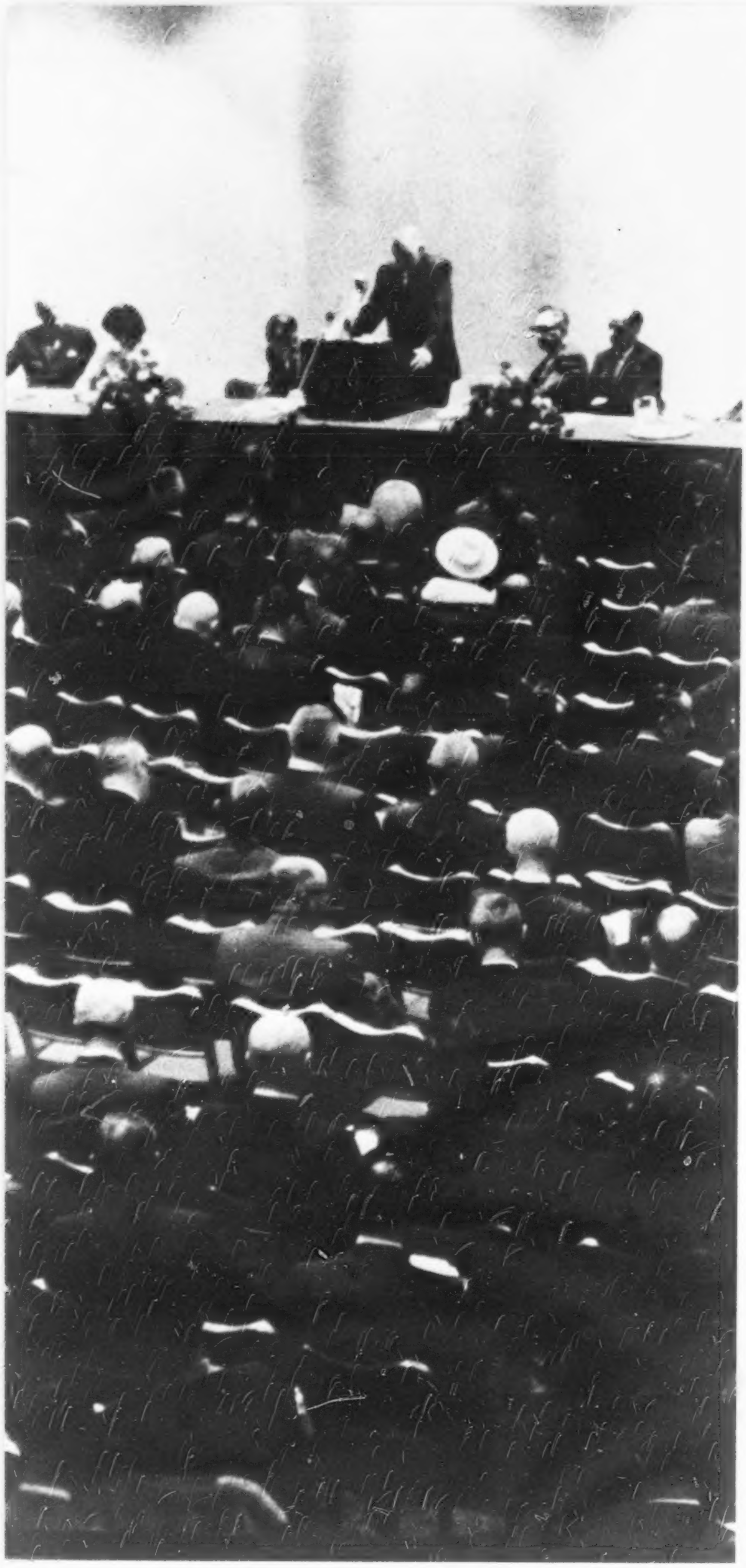
There is stepped-up federal support for state-developed programs in vocational education and manpower development, regional and urban development, and agriculture. The Economic Opportunity Act and legislation now being drafted to provide federal support for technical services in the Department of Commerce and general extension services in the Department of Health, Education, and Welfare will, if passed, further ensure the fiscal base required to make my proposal practicable.

The role of the states in coordination becomes increasingly crucial with the proliferation of federally supported educational programs administered by various departments and agencies of our government. But these reflect, in part, President Johnson's conviction that "The answer for all of our national problems, the answer for all the problems of the world, comes down, when you really analyze it, to one single word—*education*."

In the case, for example, of urban extension, in which President Johnson has expressed special interest, the successful application of educational resources to the solution of urban problems will depend upon the mobilization of a state's capabilities to develop a statewide plan and to utilize its existing facilities in an attack on specific problems. Agricultural extension has already demonstrated how this can be done in the case of rural problems. While the development of an urban extension service is more complex, it is certainly not beyond the range of our capabilities, given the fiscal support which will be required.

And, in my consideration of cost, two basic facts must be kept in mind:

1. We are currently investing in research and development something in the neighborhood of $15 to $16 billions per year. In comparison, the amount of the gross national product which has gone into the dissemination and application of the new knowledge which results from these expenditures is infinitesimal. The scales must now become more nearly balanced. The proposed legislation to support general extension, in the last Congress, carried an appropriation of $9 million. Appropriations for agricultural extension are currently at $60 million. These sums are completely out of proportion to the investment in the production of knowledge.
2. These expenditures, required to develop further the potentialities and capacities of our human resources, are self-liquidating. As has been pointed out many times, such expenditures are, in fact, an investment in the best resource the nation possesses—namely, its people; and, as their



creativity and productivity are enhanced, as their lives are enriched, more rapid cultural and economic development will be assured.

A MORE TROUBLESOME OBSTACLE is that learning is hard work, that motivation diminishes after the fourth decade of life, and that, as David Ausubel says, "Segments of the population which will have the most free time are least prepared to handle more free time and least likely to turn to educational pursuits." Simply, "self-fulfillment" or "personal growth through adult education" are concepts which have no meaning at all to large segments of the population.

I was amazed recently, reading a Harris survey (December 14, 1964, *Los Angeles Times*), that 18 percent of respondents reported their biggest disappointment in life was their lack of a good education; whereas, when asked to identify the one thing they looked forward to most in life, only 3 percent wished to go back to school! Perhaps the obvious discrepancy in these figures is due to the fact that many of today's adults did not have a happy experience learning.

The failure to communicate to large segments of the public the new characteristics of continuing education must certainly be charged against the professional adult educators. The image of continuing education as primarily remedial work for noncitizens or the educationally disadvantaged does not square with the facts. Today, the bulk of our program offerings in University of California Extension are postgraduate and professional, interdisciplinary, and tailor-made to synthesize new knowledge and explain its applicability to personal and social needs. Take, for example, the titles of last year's major symposia on the San Francisco medical campus of the University of California: "Man Under Stress," "The Family's Search for Survival," "The Uncertain Quest: The Teenagers' World," and "Food for Civilization." These programs reached, over television and Voice of America, hundreds of thousands of viewers and listeners who could not be physically present for the sessions. Or take, the scientific programs in space physics, where the editors of the book especially prepared for this course could hardly get the copy to press on time because of the rate at which new knowledge in this field was being generated.

On the other hand, we have almost incontrovertible evidence that the more education a person has, the more he wants and demands. Since the trend is toward higher and higher educational attainment (college enrollments have increased 102 percent in the last ten years; 53 percent of high school graduates now go on to college), there would seem to be good reason for believing that we can, with new methods, overcome whatever resistance to learning remains.

> *"Lifelong learning should be accepted as a normal part of our daily lives."*

Our own projections at University of California Extension predict a 16 percent growth in enrollments by 1975, with the national extension registration expected to triple by 1980. In a recent survey conducted by our director of extension on the Riverside campus of the University, 77 percent of our current enrollees have either an undergraduate or a graduate degree. Only 17 percent of their fathers could be so catalogued.

These figures give us some measure of the changes in educational attainment which are occurring and provide a solid basis on which to project success for the proposal I have made, even with participation in continuing education on paid time remaining voluntary. Those who would prefer to work rather than go to school have that option.

ONE OF MY FIRST administrative jobs, back in 1936, involved the expenditure of emergency relief funds for a national program in public affairs education for adults. We had 19 demonstration centers throughout the nation, one of them at Santa Ana in Orange County. Nineteen out of every 20 persons employed in the project had to be from the relief rolls. Even by present standards, the program accomplished its objectives. What interests me is why a constructive and important task of continuing education could be undertaken only in the depths of the depression and has not been repeated since. It seems to me that it is about time that lifelong learning should be accepted as a normal part of our daily lives, even though, as Margaret Mead says:

> We are now at the point where we must educate people in what nobody knew yesterday, and prepare people in our schools for what no one knows yet, but what some people must know tomorrow. We must rid ourselves of the idea that anybody can ever finish his education.

I received recently a description of a new approach to alumni education now in operation at Oakland University, an affiliate of Michigan State University, in Rochester, Michigan. Oakland's concept represents a radical departure from traditional higher education. Take, for example, the statement that "the task of achieving a liberal education be recognized for what it surely is—a lifelong process which cannot be condensed into any particular curriculum or time period." An institution committed to this objective must be prepared to extend its concern for its students throughout their lifetime.

Oakland University is giving more than lip service to this objective since its continuing education program is based, in large part, upon a relationship between a professional counselor and the graduate developed during the period of the student's residence and full-time study. This counselor, working with the employer of an alumnus or with the alumnus directly, plans educational programs that are of specific aid to him. In effect, this approach turns the years out of school into an extension of the learning experiences at college.

SOMEWHAT UNGRACIOUSLY perhaps, I have argued this morning with the subject assigned to me in this conference. The problem, I have said, is no longer one of demonstrating a need for continuing education. The central question now is: How do we get more and more adults to participate? I have gone further than that and suggested that we take eight hours paid time out of the 40-hour work week and give to all hourly and salary roll employees the option of using this time to participate in organized programs of continuing education. Moreover, these programs need not be vocational or job related, but, on the other hand, they bear no resemblance to gold-bricking. They will represent serious attempts on the part of qualified agencies in our society to provide important subject matter taught by competent instructors for the purpose of increasing the student's capabilities and developing his potentialities, because we believe such growth will contribute to the betterment of society and the human condition.

I have recommended further that a National Commission on Continuing Education be established to implement this proposal on a nationwide basis. I have said the progress toward the Great Society can be accelerated if we build into our processes of problem-solving and decision-making the resources of continuing education, and, finally, that we cannot afford to let inherited prejudices about work, vocational education, or academic purity induce the kind of institutional senility which only blocks our way to social advance.

I am extremely fond of a couplet by A. E. Housman:

I, a stranger and afraid
In a world I never made.

This, it seems to me, puts poignantly and succinctly the predicament of modern man. Engulfed by the knowledge explosion, frightened by the threat of nuclear destruction, intimidated by a science and technology which he only dimly understands, and alienated from his past, he seeks personal identity and self-fulfillment in a world that is progressively more impersonal and remote. The answer to strangeness is understanding. The antidote to fear is knowledge. And the prescription for alienation is informed involvement in community life. It is because I believe that the expansion of continuing education will help to provide these kinds of answers to the predicament of modern man that I would write it into the work structure and the daily fiber of American society.

The Honorable Edmund G. Brown

Governor of the State of California

Vocational Education is *Everyone's* Job

THE SUBJECT of your discussions is one of the most vital in the economy of the nation's leading state. I am proud of the quality of education in the state of California, but I'm never satisfied, and I hope that you aren't either. In public life or in private life, as soon as you start resting on your laurels or you think that what you are doing is good and correct and can't be bettered, then you're in trouble.

In the work that you're doing, I guess you feel as I do sometimes up there in Sacramento; that progress is slow, that you're not moving ahead as fast as you should. I feel frustrated sometimes about things that I feel very strongly about, things that I believe I know more about than anybody else by reason of the position that I hold. And I do get discouraged at times, and I imagine that you do, too. But let me tell you, yesterday we had a meeting of the council in the Governor's office in Sacramento, and we had all the department heads there. They had a picture of this big dam that we're building at Feather River. It was appropriate at this time, with floods in the northern part of the state. Then they showed the picture of the big dam at Oroville, which this year held back waters sufficiently to protect the cities of Yuba City and Marysville from devastation. Then I knew that even though we can't always see the things that we're doing, we are making progress. But there we can see the physical works. The things that you're doing are less definite; you can't see them. But I do hope that you will leave here better informed and with greater zeal to keep on working.

This morning I had a press conference. I advised that press conference and all the people of the state that today I approved a grant of $1,900,000 for a program to provide jobs for 5,000 young men and women in Los Angeles. The Youth Opportunities Board and Economic Opportunities Federation will jointly supervise this project. Its goal is to help school dropouts finish their education by giving them part-time work at various schools in the city and county. The jobs will be available to young men and women between the ages of sixteen and twenty-one in low-income areas. They will work as aides or assistants to custodians, cafeteria workers, garage employees, gardeners, playground attendants, librarians, office workers, and teachers. They will work 12 hours a week, and their wages will be $1.27 per hour. It isn't very much, but it will be just enough money to keep in school some of those who may be on the verge of dropping out, and we'll be educating them and doing some of the things that I think should be done.

Now you professional vocational educators are not here merely to talk to one another. You have come to this conference to exchange ideas and develop new approaches by working with labor, management, business and industry, government, and youth. This task is not easy. We ask you, for example, to find out why there are so many people out of work in the state of California, the fastest-growing state in this entire nation, not only in people, but also in industry and prosperity. And further, why are so many young people, who are just out of school, untrained for available jobs? And why, in the midst of unemployment, do jobs requiring special skills go begging because there are no trained workers to fill them?

My job as Governor—and yours as specialists—is to provide the answers and the leadership needed to strengthen the economy by building a bridge between jobs and education.

Let me emphasize that the problems are caused by vast upheavals in the economy that in one way or another affect every nation in the world. On Sunday night in San Francisco, I greeted the new prime minister of Japan. We had an opportunity to discuss the problem Japan has in education, and from his conversation I could see that his problems and ours in the nation and here in California are somewhat the same.

Yesterday, the industrial revolution threw men out of work. Today, the technological revolution is causing even more far-reaching chaos. We live at a time when electronic equipment in a bank can add deposits, subtract checks, and strike new balances at a rate of 33,000 accounts an hour. In a factory, milling machines now take minutes to do jobs that formerly took days.

The Department of Labor has estimated that technological change is canceling out about 200,000 factory jobs each year throughout the nation. Now, what becomes of these workers who lose their jobs to a machine? They either agree to be retrained, or they go on the welfare rolls. Or they are retrained only to find that the job they now can do is only available 2,000 miles away from home. That's part of the background of our problem. But let me emphasize that the picture is not altogether bleak.

In our history, we have previously met the challenge of training a man to do a specific job. During World War II, we thought nothing of graduating a pilot and a gunner and a navigator from school on the same day that the plane rolled off the assembly line.

Today, however, I think we lack some of the essential information. As I talk about these things, you can see the *X* qualities of what should be done. You can see them and I can see them as I speak. We don't know when the plane will roll off the assembly line, or whether it will need a gunner or a navigator—or even a pilot. So we must close that information gap. We must look ahead to find out what kind of jobs there will be ten years from now. And we must do this by making use of the very automation that has upset the traditional patterns of employment so that it will be a powerful tool for prosperity in the future.

I am glad to be able to tell you today that my administration has already taken the lead in this direction. During the last few years, defense department contract cutbacks have caused severe lay-offs in the aerospace industry. Since 37 percent of our manufacturing industry is concentrated in ordnance, aircraft, electrical, and instrument production, we obviously faced a problem. And California faced the toughest problem in the entire United States because we had more of such industry.

Shortly after Skybolt folded two years ago, I asked the leaders of aerospace and defense industries to find out how to soften the impact of these cutbacks. We met in the Executive Mansion in Sacramento, we met here in southern California, and we met in various other places.

The first studies of this group showed that 50 percent of all engineers and scientists trained in space and research and development live and work in California. We have also found that such skilled workers share a talent that we can and should put to work on community problems. The talent is the ability to think in terms of new dimensions, to break down barriers, and to use technological skills to solve the problems of the everyday world. In other words, if engineers can get John Glenn into orbit and back, why couldn't they design a better way to get a father to work and back?

We think they can do exactly that. And, therefore, we have asked these talented men, who so far have had their minds on the stars, to use their skills on earth.

"The improvement of education is my number one goal."

—Inaugural address, 1959

“Too many vocational educators hav

(Don't for a moment think that I'm minimizing what they're doing in that direction either; I like to keep my mind on the stars and I want everyone else to do it, too.) But we have called for bids from California's aerospace industry to work out programs in four areas.

First, transportation. We have asked the systems engineers of these great aerospace industries to provide a complete transportation network within the state, efficiently coupled into land, sea, and air transportation out of the state. We have asked them to identify the major patterns of movement of people and merchandise, materials and food, within the state. We have asked them to describe the transportation system which the state will need 10, 20, 30, and even 50 years from now to provide efficient movement. We can tell by past growth how many cars we will have in the future and the direction which we should go. Finally, we have asked them to tell us how much such a transportation system will cost. Who should pay for it? Who should run it?

Bids for a transportation system were put out with specifications like those for the construction of a building. We have received 20 bids from the greatest systems engineers in the state of California, and these are now being worked over in Sacramento to determine to whom this contract will be awarded.

Second, we have done another amazing thing—and let me emphasize that all of these things we are doing are experimental. They can fall flat. I don't know whether they will or not. I don't want you to think that because we have our eyes on the stars that we think systems engineers can answer every question in the state or in the world. But, second, we have asked systems engineers to design new ways to cope with California's criminals and mentally ill.

Third, we have asked them to develop systems for managing the vast amounts of wastes discharged into the air, the soil, and the water of California as a result of consumption by men and machines of materials which are necessary to support life or to produce goods.

Fourth—and foremost for the purpose of this gathering—we have asked the systems engineers how best to gather accurate information upon which government and industry can base decisions for years and even decades ahead.

For a society which spills out words and pieces of paper the way ours does, we are often woefully lacking in hard facts on which to base crucial decisions. We have asked the aerospace engineers to design systems that will improve our data on diseases and educational requirements.

YOU CAN SEE THE IMPLICATIONS of these requests for vocational education. There is no reason why these systems engineers can't work out a system to find out what types of jobs are going to be available in the future—and when. And I'm going to ask them to do exactly that! Then we would know what kind of training—and in what amounts—to give which students in which areas of the state.

I foresee a system which will tell us, years in advance, that in 1975, for instance, aerospace industries on the San Francisco peninsula will have openings for 512 electrical engineers and 16 theoretical physicists and 1,200 technicians. I can see reports issued in 1966 that will show that, in 1976, San Diego's aerospace industries will need only 125 technicians, but 1,000 truck drivers, 100 plumbers, and 21 electricians. With this information on hand, some coordinating agency could then inform each of the colleges and high schools in the San Francisco and the San Diego areas what the needs will be in every conceivable job field. And the high schools and colleges could train students accordingly.

Now I must confess that this is a bit of looking at the stars, but nevertheless, I think that we should keep looking in that direction. And if these people could do some of the things they've done, I think that you'll agree with me that we can make progress in this direction, too.

I can foresee another system whereby a fry cook sitting in the State Employment Office in Sacramento looking for a job could hear about an opening in Los Angeles that had become available only minutes before.

I can imagine still another computerized system which would match the skills of the unemployed with the qualifications of a job opening and grind out a man's card—which would be his ticket to a job. I don't know whether I like this or not, but nevertheless, it's here.

This, of course, is only a beginning. But it is an exciting start, a pioneering effort which I believe is in keeping with the tradition of California and, I hope, the customs of my administration. The idea of transferring talented systems engineers from the field of space hardware to the broader field of human needs

cked their programs to the past.”

is in itself a breakthrough of significant proportions. The talent has been there for some time. It just took us a while to see its tremendous potential.

I must point out, though, that what I am suggesting here today will only work if you vocational educators start looking at your problems the way a systems engineer would—that is, with new thinking, with a fresh approach.

For too long, too many vocational educators have locked their programs to the past. Unable or unwilling to find out the needs of employers, these educators have been training students for jobs that don't exist. Or worse yet, they have been training them for no jobs at all.

Walk into the average high school today. You're likely to find students still taking mechanical drawing or woodworking or auto mechanics or homemaking. Fortunately, some good comes out of most of these courses. The students gain dexterity by using their hands. But they do not get job training. And the students find, to their regret, that when they are graduated from high school, they just can't find jobs.

The boy who learns auto mechanics can use his knowledge to fix his jalopy, but he can't afford a jalopy.

The boy who took a course in woodworking may well have trouble getting into a union with his limited knowledge, so he can't be a carpenter. If he is lucky enough to find a job in another field, he might be able to enjoy woodworking as a hobby.

But vocational education—by its very title—was not meant to train people to be good at their hobbies. It was meant to train people for a vocation, not an avocation.

When high school courses have no real goals, they have become dumping grounds for everyone's problems and prejudices. Teachers who have a student who is a disciplinary problem shunt him into a vocational education course, only to find that he is still a disciplinary problem—though a less literate one, since he has been barred from academic work.

And further, in many large cities, vocational education courses have been the in-school ghettos of the Negro, the Latin American, and other minority groups whose own cultural poverty so far has doomed them to a life of failure. These classes have been the dumping grounds even for many bright and able Negro youngsters who, because of the color of their skin, have sometimes been forced by prejudice into nonacademic study. We must stop this stereotyping of our students for the simple reason that we cannot afford to waste any of our talent today. Every boy and girl in this state must have a chance to develop his abilities to the limit.

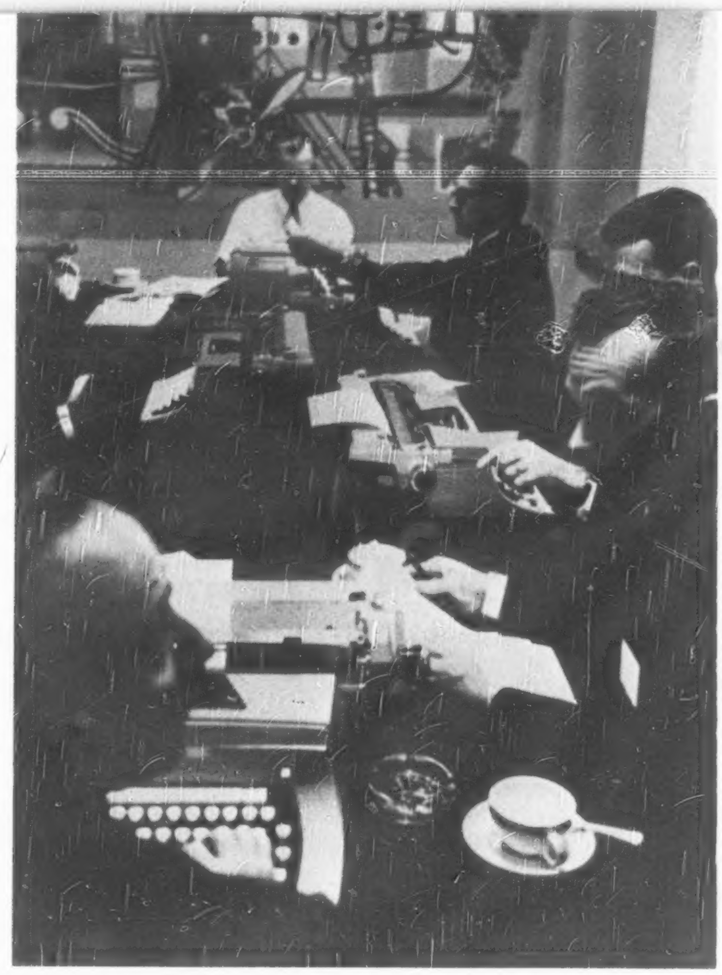
No matter what talent a person has or doesn't have—and no matter what job a person will end up doing in his lifetime—there are certain basic skills that he or she will be expected to possess. Probably the first, and most important, is the ability to read and write. So you might say that vocational education begins in kindergarten. Educators agree that the first few years of a child's life are the most important to his development. It follows naturally that the first few years of his education are also the most important. The very young child should learn another facet of vocational education—and in the very first grade. And that is: When there is a job to do, he should do it. It should be impressed upon him that the job to do right now is to go to school and learn. To do even that job well, the child must master the fundamentals, because they are the tools that he will need to work with.

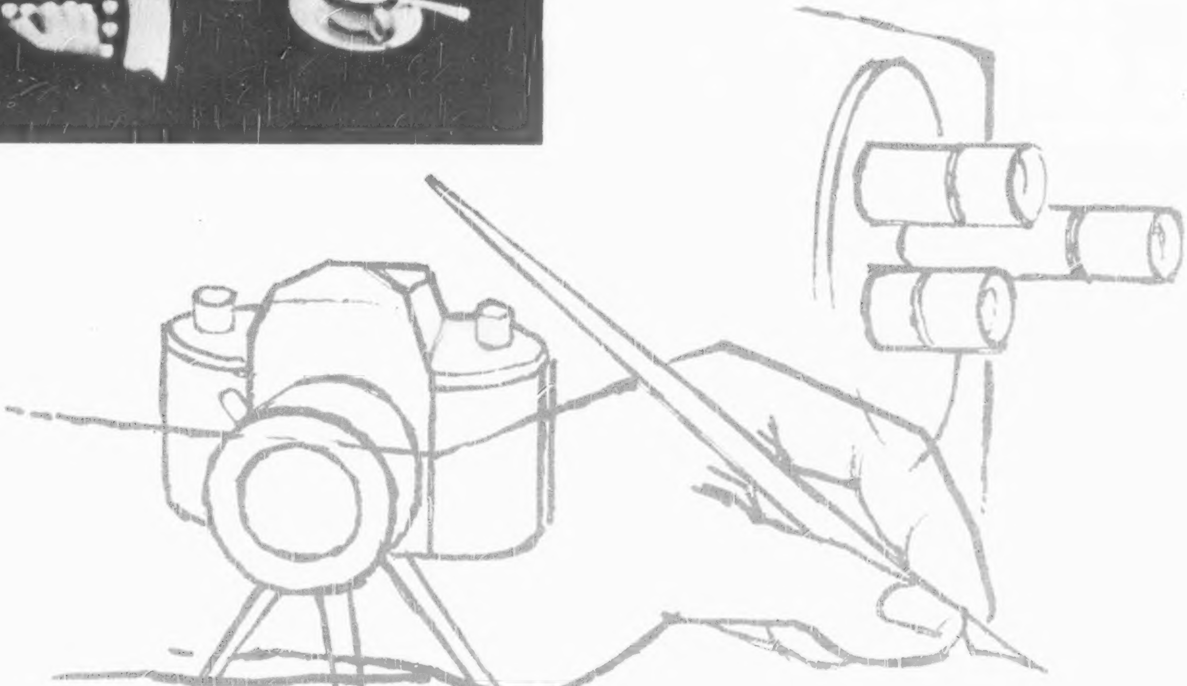
I don't believe that I have painted a very pretty picture for you here today, but I do believe that it is an accurate one. I don't mean to say that nothing good has been done, because some excellent things have been done and you're doing them everyday. What I am trying to say is that we must stop walking down the same paths to failure in vocational education and pave some new roads to success.

We can be encouraged by the successful inroads that have already been made by our large, unified school districts in our big cities and the junior colleges in urban areas. But we do need more emphasis on vocational training in the cities, and in rural areas as well.

Through your work at this conference—and I know that it is going to be transcribed and studied and it will be reported to educators all over the United States—I assure you that you can make real progress. You can help us to educate the public to the fact that not all students were meant to be doctors and lawyers, nor should they be. Our society needs the skills of secretaries and clerks and craftsmen and technicians. We are going to keep on needing them, in one form or another, in the future.

You are here to help us match people with jobs—now and in the future. I wish you well.





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Editorial Note

The material in this report was prepared under contract with the Vocational Education Section, State Department of Education, by members of the faculty and staff of California State Polytechnic College. The college provided editorial and recording staff members who volunteered their time and services to prepare this report.

Although deeply interested in vocational education, members of this staff did not participate in the conference beyond reporting it. Points of view, or opinions stated, are not necessarily the official position or policy of the State Department of Education or of California State Polytechnic College; rather, they are attempts to report objectively and concisely the events of the conference.

The purposeful variety of the reports of the various discussion sections that follow permits forms chosen by each team of section recorders to present the ideas put forward and discussed and to reflect the relationships among the discussion topics themselves.

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DISCUSSION SECTION ONE

What Makes Youth Employable?

To HELP PARTICIPANTS IDENTIFY the characteristics, understandings, attitudes, and abilities that contribute to occupational competence and employability of youth, members of the panel made individual presentations about various aspects of youth employment; then they participated in an open discussion.

* * *

Youth in Technical Industry

If five different industrial managers were asked what makes youth employable, the questioner would probably get five different answers. Mr. Laird pointed out that life in the industrial field is rapidly becoming very difficult and complex for the noncollege graduate. He quoted former Under Secretary of Labor James T. O'Connell, who has reported that the number of people in white-collar jobs now exceeds the number of workers in blue-collar jobs, a trend which is continuing and will be accelerated in the next decade. These facts give rise to serious questions. Are the so-called blue-collar worker's days numbered? Will automation do away with the need for unskilled and semiskilled people? What kind of education is necessary for noncollege-bound young people?

The need in the future is not for more scientists and engineers but for more well-trained technicians to give support to the scientists and engineers. According to several authorities, there should be five or six trained technicians to back up each electronics engineer. At present, the ratio is approximately one to one.

CHAIRMAN: James Corson, Executive Secretary, California Association of School Administrators, Burlingame

PANELISTS: Robert H. Hill, State Supervisor of Youth Services, Department of Employment, Sacramento; Mrs. Mary Frances Allen, Employment Supervisor, Southern Counties Gas Company, Los Angeles; F. N. Laird, Industry Education Programs, Personnel Division, Autonetics, Anaheim; Mrs. Marie Muzzy, Personnel Director, Walker Scott Company, San Diego; Mrs. Jessie Chittenden, Assistant Dean of Placement, Pasadena City College

RECORDERS: David E. Cole, J. M. McRobbie

The present need is to teach youth marketable skills. To emphasize this point, one of the panelists quoted J. T. Wahlquist, President of San Jose State College, who said that democracy can be made to work successfully only if every citizen is educated to the limit of his capacity; that we cannot ignore individual differences in our students and simply exclude the slow learners; and that we cannot apply the same standards to everyone.

Among those qualities which most employers look for in those they employ are honesty, integrity, sincerity, enthusiasm for life and work, conscientiousness, openmindedness, flexibility, receptivity, and a healthy sense of responsibility to the employer and the job. Additional desirable traits are related to the employee's attitude toward people, toward the American system of free enterprise, toward government, and toward daily efforts on the job.

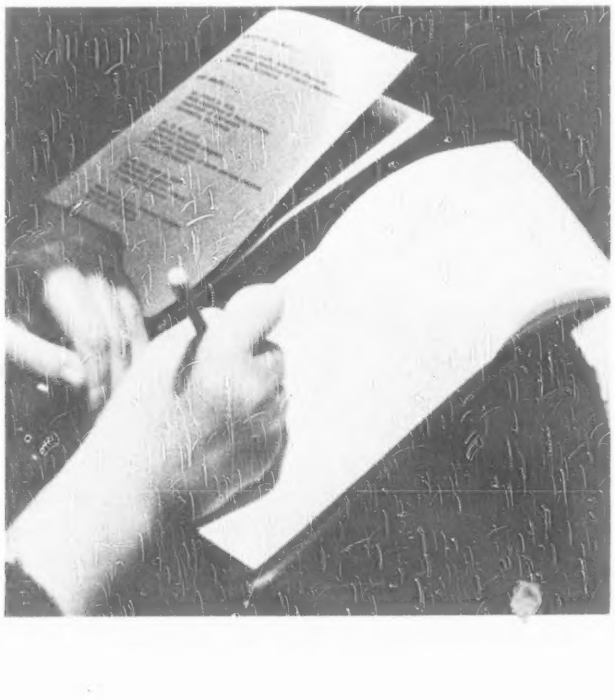
The Autonetics Division of North American Aviation has a program called P.R.I.D.E. This acronym stands for Personal Responsibility in Daily Effort. The purpose of the program is to get employees to develop positive attitudes toward their jobs and the society in which they live.

Most young people can be employed in blue-collar jobs if they know arithmetic and feel competent in using it, have a good grasp of the English language and are able to communicate through the spoken and written word, read ordinary written material with good comprehension and reasonable speed, and can use the simple tools of the proposed trade. Industry will be more pleased and youth will be more employable if, in addition, the young people understand (1) our economic system; (2) our governmental system; and (3) the basic principles of human relations.

Youth in Retail Merchandising

Mrs. Muzzy of the Walker Scott Company approached the topic, "What Makes Youth Employable," from the standpoint of the young person seeking a first job. She spoke as an employment executive of a five-store mercantile chain which employs from 900 to 1,000 full-time employees and 350 to 400 seasonal employees. Since the late 1930s, the firm has had a policy of employing youths of high school and college age. The company's stores are located in the vicinity of high schools and colleges, and the schools' employment counselors make a practice of referring potential employees to the firm. More qualified young applicants are turned away than can be hired. However, at the request of the schools' employment counselors, the company grants interviews to all applicants in order to give them valuable experience in applying for a job. Mrs. Muzzy urged more firms to make this a practice.

According to Mrs. Muzzy, the following characteristics make youth employable: appearance, pleasant personality and proper attitude, interest, integrity, loyalty, aggressiveness, and the desire to learn. Young people should have an awareness of good grooming and a pride in maintaining a good appearance, and the schools should do everything they can to help their students gain this awareness and develop this pride. A radiant personality is evidenced by a ready smile even though the person is under extreme tension during the course of an employment interview. A good personality can be developed from training received both in the home and the school.



It was observed that today's youth evidence a higher degree of aggressiveness than that shown by previous generations. Even though they are more aggressive, however, the effects of automation are making it continuously more difficult for them to obtain gainful employment. It was observed that modern youth possess a keen desire to learn, to compete, and to excel, which is apparently the result of school training.

Mrs. Muzzy emphasized that previous training, regardless of its nature or apparent minor importance, is a strong consideration in hiring youth. Such training may be in the area of school-oriented activities, Junior Achievement projects, vacation activities such as camp counseling, and weekend occupations.

Each of the company's jobs is categorized by a job description, Mrs. Muzzy reported. Of 77 job descriptions, 68 stipulate that high school graduation is mandatory for the jobs described; only seven indicate that a high school education is "only" preferred. Two classifications do not require a high school education but are part of a program in which the employee works and pursues his high school education at the same time.

As part of its training program for school-age employees, Walker Scott Company has organized the High Deb or Varsity Council. The function of the council, which is composed of 30 student employees, is to meet periodically to study and discuss fashion trends and to present fashion shows at various high schools and junior colleges. The group also makes an annual trip to Los Angeles Merchandise Mart. This program has gained acknowledgment from area educators in distributive education.

In summary, Mrs. Muzzy said that, by and large, youth desire employment and that young people make desirable employees for the retail merchandising industry, the largest single employer group in the United States. She stated that more schoolwork should be oriented toward the noncollege-bound high school student.

Youth in Service Industries

Mrs. Allen, representing service industries at the conference, referred to the *Dictionary of Occupational Titles*, published by the U.S. Department of Labor, in which the term "service industries" refers to performance of domestic services, personal services (such as those performed by barbers and beauticians), protective services, and building services. These are distinguished from the services offered by a public utility, which is, technically speaking, not a service industry. However, it was noted that a public utility does, in fact, offer services to customers; therefore, some of the factors which make youth employable for a public

STATLER HILTON

utility would be expected to apply to service industries.

For example, Mrs. Allen pointed out, the employment pattern of the public utility which she represents is in three areas: college recruitment, specialized middle- and top-level management, and beginning-level employment. Because of the competition from other potential employers, the college recruiting program represents a large investment in time and money, but it accounts for only a small percent of overall employment. The hiring of specialized middle- and top-level management probably accounts for less than 1 percent of all persons employed by the company, because of a strong policy of hiring from within. The only person who would be considered for employment in one of these classifications would be one who possessed skill, training, and knowledge that someone already employed by the firm did not possess.

The major emphasis of the company's employment office is on hiring beginning-level employees. Because of the strong emphasis on the policy of promotion from within, the company maintains a continuous program of on-the-job training. Specialized classes have been designed to help train the employee in the skills of his particular field. Thus, the major objective of the employment office is to hire persons with the ability to profit from additional training and to get along with their coworkers.

Mrs. Allen gave four case histories describing persons who had started with the company at a beginning level, and through company and outside education, had progressed to managerial and supervisory positions.

In discussing qualities that make youth employable in her own company, Mrs. Allen noted that most of the company's beginning employees possess above-average intelligence and the ability to use it. The employees must possess the qualities necessary to enable them to create a favorable impression for the company with the public; they must have a good knowledge of basic English and mathematics. Some 90 to 95 percent of the men employed by the company must have an aptitude, for mechanics and electricity. In most jobs filled by women, typing and shorthand are required.

Service industries have a common need for employees with the ability to work with, and get along with, others. Although some requirements of the small employer may be different from those of the large employer, both types of employers look for the same basic traits in those they employ.

Youth in a State Training Program

Describing the Oak Glen Forestry Youth Camp near Beaumont, California, Mr. Hill explained that it prepares untrained and unemployable youth to become employable and useful members of society.

Youths selected for the training camp are unemployable mainly because of lack of education as a result of having dropped out of school. Also, since they have no work experience, they have not acquired productive skills, knowledge, or ability. Typically, they evidence a poor adjustment to group activities, require a high level of supervision, and have a low regard for society and its laws.

However, after successfully completing the program at Oak Glen Camp, 85 percent find satisfactory employment. Jobs held by these youth, generally speaking, are on a beginning level—jobs that would not be acceptable to most high school graduates but are at least "a step up the ladder."

Those who do not take advantage of the opportunities offered at the camp usually hold back because of lack of motivation or the fact that their environment has not encouraged them to take advantage of opportunities for improvement.

Summary and Discussion

Considerable concern was expressed by participants regarding difficulty shown by teen-agers and other young people in getting along with others. Although this ability is much valued by industry, it is not always taught. Young people who come from broken homes particularly seem to lack this training, it was observed. Greater attention in evaluating psychological approaches to youth was urged.

Several portions of the discussion stressed ways in which job requirements are related to the intelligence and abilities of the individual. Various definitions of intelligence were mentioned, along with a statement that 68 percent of the population is of "average" intelligence. Yet, even mentally retarded people, under the burden of a label, may be rated highly if evaluated in terms of those functions which they can perform with competence.

It was noted that employment standards vary in industry. For example, pipeline contractors, who indirectly employ personnel for large utilities, may not be so rigid in their employment standards as the utilities are.

Mr. Laird reported that some companies overhire. That is, they set higher standards to fill a job than are necessary for the proper function of that job. Overhiring sometimes leads outstanding high school students employed for summer work to lose enthusiasm when they observe graduate engineers, for example, working in routine jobs. Industry is often "degree-happy," it was suggested, and should reexamine hiring practices.

It was urged that industry recognize responsibility for creating jobs. Two observations were made: 20 percent of the employers create 80 percent of the jobs; and these employers express interest primarily in employing people with above-average intelligence. What can be done to provide the below-average group with employable skills? What kinds of opportunities are available to them?

The desire of large employers for employees of above-average intelligence is based in part upon the policies of promotion from within. Mrs. Chittenden commented that it is difficult to get junior college students to accept beginning-level positions, despite evidence that those who start at the bottom use the experience to advance.

Examples of policies which tend to discourage beginning workers were cited: a report that an electronic worker hoping to work for the post office in his field must begin as a letter carrier, and a confirmation that gas company personnel trained for data processing must begin at a lower-level job.

Educational trends often influence the young people's attitudes. In addition, parents may refuse to approve nonprofessional courses for their children in junior college. Thus, it is sometimes difficult to put into practice the theory that students should not attempt education beyond the limit of their abilities. Counselors attempting to guide advisees into vocational courses often fail to receive cooperation from students and their parents.

Although placement practice suggests that any kind of student work experience is better than none, most students will not consider such jobs as cutting lawns, babysitting, or delivering papers. Parental attitudes influence these negative responses of the students, and so does the climate of opinion developed by industry, which has helped educational institutions sell the value of higher education.

A by-product of the emphasis on higher education is the fact that young people feel that they have a right to start in high employment positions. It was suggested that industry must now feel an obligation to sell the accelerated program in vocational education. Vocational curriculums to challenge students and also give them a sense of success should be developed. One method advocated was the problem-solving situation in which students must think their way through an experience rather than follow a set of established procedures.

Vocational education is entering a new era of respectability; it is no longer regarded as a "dumping ground." Because of the high level of technical training necessary in many of today's blue-collar jobs, vocational education now has greater status and is gaining broader support. Nevertheless, vocational training is not a cure-all for students with below-average intelligence. In some areas this notion tends to hold back the overall development of a vocational education program.

The effect of new legislation for vocational education will not be to discontinue the existing comprehensive high school, but to centralize facilities for vocational education.

A program proposed at Stockton would establish a vocational high school to serve the county; this school would meet the special needs of students and provide training that the comprehensive school cannot afford, such as specialization in cosmetology, printing, electronics, and data processing. High levels of training would motivate high school students to attend the vocational school.

A similar program suggested at Torrance would support the comprehensive high school with an area vocational center. Los Angeles Trade Tech was cited as a school which had received increasing acceptance.

In discussing the conflict faced by students who hope to satisfy college entrance requirements, yet also wish to learn a marketable skill, participants said that these students should be discouraged from attempting to pursue both a commercial program and a college preparatory program in high school. A college preparatory program with supplemental job training (during summer school, if necessary) was recommended. However, although such training would be of great value to the student who enters college, there is not enough time in summer school to achieve marketable skills in most areas. Typing and shorthand courses offered in summer schools, for example, were considered essentially supplemental vocational preparation.

After identifying the types of training institutions operating in the state, the panel recognized that one of the primary needs is for vocational education for potential dropouts. An account was given of a San Francisco proposal to open a vocational high school in addition to the existing night vocational program for both high school students and adults. Training in vocational high schools or comprehensive high schools is needed to meet future demands for workers in service occupations. The manpower training programs of the federal government already are providing some such training, but more federal subsidies may be necessary to help schools do an adequate job.

Generally, a spirit of willingness to cooperate was shown by state, local, service, and industry representatives, with an acknowledgment that new vocational education legislation will have a direct bearing upon both educational programs and future hiring practices.

DISCUSSION SECTION TWO

How Future Manpower and Training Needs Can Be Identified

DURING THE PAST SEVERAL YEARS, high levels of unemployment, struggles for equal rights, the Antipoverty Program—all have highlighted the importance of forecasting manpower and skill requirements for training purposes. Collecting and disseminating information on these forecasts and on job vacancies have come to demand the highest priority among vocational educators; yet, we seem to be making slow progress. Not enough resources are being allocated to research; we don't even know what kind of information we need. We must also deal with essentials of economic policy: the high level of unemployment in California today and the particular kinds of skill demands we will experience in this growth state. Factors like these tremendously complicate the task of projecting technologies and the skills they will require.

National and State Employment Trends

Mr. Gershenson used graphs to compare similarities and differences in employment patterns in California and in the United States. He suggested that vocational education people keep in mind both the similarities and the differences in employment patterns in California and the United States and in California and the rest of the West. He emphasized that changes change —directions change—and we have to anticipate them if we can. This makes projection a difficult task. Mr. Gershenson pointed out these similarities and differences in the trends in employment patterns:

- *Unemployment.* In 1950, California's unemployment was considerably higher than that for the United States. In 1954, however, it was less than the national average. Then the unemployment

CHAIRMAN: Don Vial, Chairman, Center for Labor Research and Education, University of California, Berkeley

PANELISTS: Louis E. Davis, Professor of Industrial Engineering, University of California; Berkeley; Maurice I. Gershenson, Chief, Division of Labor, Research and Statistics, State Department of Industrial Relations, San Francisco; Sam Gomsrude, Wage and Salary Administrator, North American Aviation, El Segundo; Clive Knowles, Research Director, California State Council of Carpenters, San Francisco; Don Mayall, Senior Research Analyst, State Department of Employment, San Francisco; Bruce Poyer, Research Director, Western Conference of Teamsters, San Francisco; Mrs. Margaret Thal-Larsen, Executive Secretary, Commission on Manpower, Automation, and Technology, San Francisco

RECORDERS: Quay D. Ives, Robert V. McKnight curves paralleled each other for some time. At present, California's percent of unemployed is 6.1, compared to the national figure of a little over 5 percent.

- *Nonagricultural Wage and Salary Workers.* In 1950-55, the California pattern was much different from that of the United States, for we were increasing the proportion of our employment in goods-producing industries. Despite the graphic growth of aerospace industries in California in the last few years, however, the proportion of nonagricultural workers has fallen off quite rapidly.
- *The Service-rendering Industries.* This group has the opposite trend. California has always had a much higher proportion of employment in service industries than the nation as a whole has had. This increase in services and decrease in goods-producing is the normal trend of a mature society.

Reemphasizing changes within change, Mr. Gershenson pointed out that California employment patterns differed markedly from the national trends in 1940, approached them closely in 1959, and now, with the growth of aerospace industries, are diverging again. In individual industries, he pointed out the following long-term trends since 1950:

- *Construction.* In contrast to the stable national pattern of construction and despite our big population increase, California has had what looked like a downward trend and now a reversal.
- *Transportation, Communication, and Utilities.* Other industries have absorbed the drop in railroad employment, and for the first time in many years, this industry group has made new highs.

- *Finance, Insurance, and Real Estate.* Although their proportions are not very large, these reach new highs in California every year.
- *Trades.* There has been a sharp drop since 1958, although we seem to be heading up a little now.
- *Service Industries.* Up until 1956 we had a slight downward trend. But in 1956 the trend started upward, and we see no let-up.
- *Government.* California has a larger proportion of employment in government than the nation as a whole does. Nearly one out of five persons employed in California is in government.
- *Manufacturing.* In 1960, Dr. Gershenson said, he predicted that manufacturing would continue to be the number one industry in employment in California, but next year manufacturing will drop to second place and trades will be first. So, although patterns seem to indicate similarities with the nation as a whole, there are major differences in California.

In conclusion, Mr. Gershenson pointed out that services, finance, and government are employing increasing numbers of people, while trades, construction, and agriculture are employing fewer. There is a "flattening out" of the relationship between white and blue collar workers and, in California, a higher proportion than in the United States of professional-technical workers, clerical workers, and craftsmen.

Elements of Technological Change

Predicting manpower needs is a complicated two-part problem. The first part, which Dr. Davis did not discuss, deals with the numbers of workers that will be needed in various jobs. The second part is, what kinds of jobs will there be and what kinds of skills will people need for them?

Three types of technological change have been going on for a long time, Dr. Davis said:

- Mechanization—the substitution of mechanical devices for human power
- Rationalization—the specialization of tasks through breaking them down and reordering them so that more professional talent is required in the planning phase but less skill is required of the individual carrying out the work
- Automation—the mechanization of control and information processing

How to predict the direction of these types of technological change is the subject of Dr. Davis' research project at the University of California. Phases of his work include:

- Identification of common elements of technology in order to determine what educational preparation can best prepare people for particular jobs
- Examination of the variety of responses required in the performance of jobs to try to predict what tasks will become mechanized and automated next
- Analysis of what is economically feasible as well as technologically possible

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One of the characteristics of highly automated, mechanized processes is an immoderately large capital investment per employee. At the present time the steel industry in the United States has invested about $100,000 for every employee; the petroleum industry, about $125,000. Such an investment motivates employers to see that their plants are operated at their highest capacity for the longest possible time, to bring about job changes that will require a minimum amount of downtime. Consequently, they want workers with a range of skills they can use to maintain as well as operate the costly equipment. Therefore, Dr. Davis predicts that we will move away from the high degree of specialization that has been needed in highly manual competitive work toward the multiple skills that are most useful in automated, mechanized work.

Speaking of short-term needs, Dr. Davis said that what we need in this state and probably across the nation is a network to feed employment information into the employment system and our Department of Employment, information that will also be useful and available for guidance and counseling and for short-term training programs.

At the moment California's information-gathering machinery is only partially developed. The Department of Employment participates in only about 10 percent of the job placements made in the state. Nevertheless, the Department is a public agency that can, with some extensions, collect information about the kinds of jobs being called for and the kinds of workers placed and displaced, so that we can look at the immediate changes taking place in our local economy.

In the long run, Dr. Davis said, we need to develop ways of looking at changes with perspective, removing them from their framework of specific industries. When we can look at changes across industry, there will be more similarities than differences in the responses we expect from persons working in advanced technology.

Changes in Aerospace Requirements

Perhaps the best way to identify changes in job requirements as they relate to the aerospace industry, Mr. Gomsrude said, is to note that in his own company, 85 percent of the employees were blue collar workers in 1941. In 1965, less than 30 percent can be defined as blue collar workers.

There have been a number of reasons for this dramatic shift:

- A sharp transition from the mass production of hundreds of thousands of aircraft to individual production of a few products having to do with space exploration and supersonic transportation
- A consequent demand for utmost reliability, which is achieved through the use of new materials, new processes, and new techniques
- A substantial change from manual work operations to mental work operations requiring workers to be certified and recertified

Concurring with Dr. Davis that multiskilled workers would be needed in the future, Mr. Gomsrude pointed out that a man working on a space capsule needs to be extremely proficient in electronics and also needs a working knowledge of hydraulics, mechanics, pneumatics, and environmental conditions in the capsule. On the other hand, he said, the aerospace industry also requires certain work operations that are so highly specialized that some workers can perform only a single operation. Mr. Gomsrude predicted that both the multiskilled and specialized worker will be needed in the future.

1965
1966
1967
1968

The answer to aerospace needs, he said, is the technician. The technician has a thorough working knowledge of one of the recognized fields of science or engineering, and he can understand and interpret the work of the professional engineer. In addition he is a skilled workman in a craft or in some operation associated with manufacturing or development. One division of Mr. Gomsrude's company needs 400 technicians now, but the company will have to hire people who have the aptitude and basic skills and train them. Technicians are not available.

Employment in the Construction Industry

Construction in California is a $5-billion-a-year industry, which places it ahead of agriculture and even with the aerospace industry, Mr. Knowles said.

California leads the nation in construction. It builds 20 percent of all the new housing units; yet, it employs only 10 percent of the nation's construction workers. This discrepancy is explained by the technological revolution in construction in California brought about by the use of the following:

- Machinery and power tools of all kinds
- Off-site prefabrication of components
- New materials requiring fewer men to handle them
- Specialization in which one crew lays a foundation, another builds the framing, another does the siding
- Computer technology in scheduling men and materials to minimize downtime

There are no figures to indicate to what extent the cited factors have displaced craft labor, but it is certain that they have reduced the pride of the craftsman in his work, Mr. Knowles said.

From 1956 to 1964, there has been a national annual increase of about 100,000 employees in building construction, plus 75,000 white collar workers in the industry. Roughly, California needs 13,000 newly trained construction workers a year. In 1963, of 28,000 enrolled apprentices, 4,500 completed their apprenticeships, leaving a need for 8,500 additional workers. Undoubtedly, this gap is being filled by workers who are not going through the apprenticeship program in this state but achieving journeyman status in another way.

A worker entering the building trades can expect that his rate of unemployment will be about twice that of the average worker, for unemployment stands at 12 percent in the building trades. Under the best of conditions, a carpenter can expect to work only 1,400 hours a year, and his annual earnings will only slightly exceed those of the average factory worker.

The Teamsters' Viewpoint

In the last several years the Teamsters' Union has had the reputation of being one of the few unions in the country that has actually gained in membership, at least in absolute terms, Mr. Poyer said. Like the other unions, however, the Teamsters' Union is losing ground in terms of proportion of work force represented.

The outlook is dim for future job opportunities in the driving trades. Jobs still can be had in the San Francisco Bay area, and applicants do not need a great deal of skill. Employers look for responsibility rather than skill. In northern California a driver will have a chance to get a job if he's between 25 and 30, and has two or three years of good experience, and has children to support. This is not promising to youngsters coming out of school, Mr. Poyer remarked.

In the cannery and food-processing jurisdiction of the Teamsters' Union in northern California, the federal government conducted an automation demonstration project from 1950 to 1962. Its purpose was to project employment trends in this industry. The economists found that production soared in those years despite sharp reduction in the number of hours worked during the summer months and no increase during the winter months.

The federal and state economists who worked on the project felt that it should go beyond a summary and prediction of employment trends. The economists wanted to talk to the people who were being displaced, find out what other kinds of work they could

do, if there were training opportunities for them, if they could be referred to other programs, and so forth. The group hoped to get factual information which would benefit not only the industry but also the economy at large.

This second phase of the project was never conducted because industry representatives on the joint committee refused to authorize it, Mr. Poyer said. Since all of these proposals cost money, employers are understandably reluctant to divulge the sort of information needed. Yet, the problem, of course, has to do not only with those industries with which the union is bargaining, but also with the whole economy of the state and the people who need jobs and training opportunities.

Employers are not yet reconciled to recognizing these problems as social problems that have to be grappled with at the state and federal levels. Nor are the unions, with their separate jurisdictions and their emphasis on collective bargaining, the best agents on whom to center a program of job opportunities, information, and training. The unions are, however, beginning to create job opportunities by the use of several plans:

- Sharing work
- Reducing number of hours of work per week
- Increasing paid time off-holidays, vacations, straight extra days, sabbatical leaves
- Granting early retirement under pension funds

One job opportunities area that should not be discounted, Mr. Poyer said, is recreation. As people work fewer hours, they have more leisure time. Teaching the use of leisure time, planning programs for recreation, and staffing recreational facilities may well be one of the big areas to come in vocational education.

Occupational Information

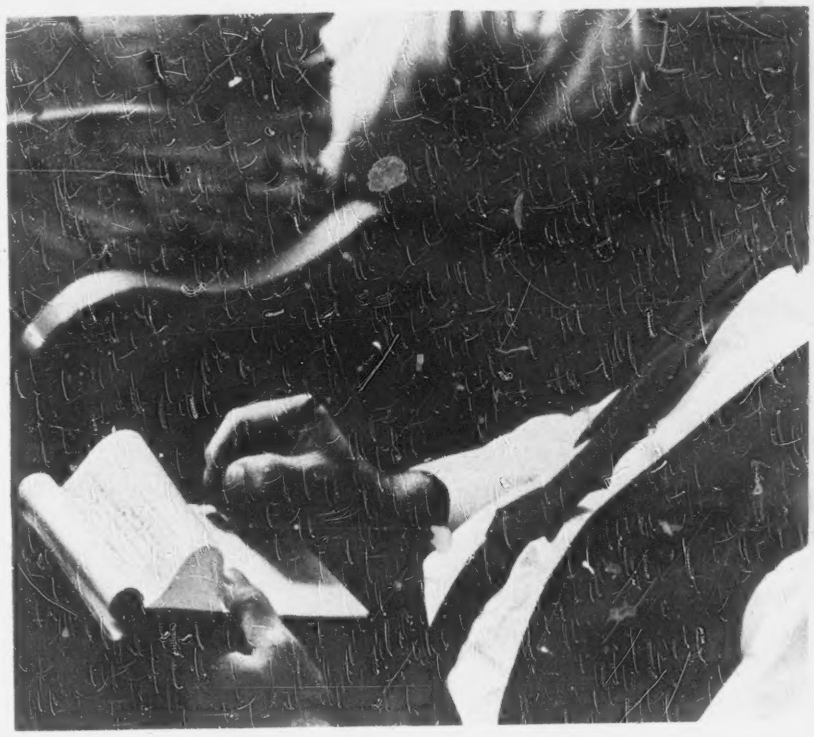
Gathering occupational information is one of the services of the State Department of Employment. Occupational information indicates how labor markets work, what occupations are in demand, what their requirements are, what kinds of applicants are available, and what happens to displaced workers.

The two major uses of labor market information are in vocational counseling and in developing programs for the training and retraining of workers.

The Department of Employment develops and uses three basic kinds of labor market information:

- *Current Labor Market Information on Jobs Available, Applicants, and Locations.* This type of information is limited because the Department participates in only 10 percent of job-finding transactions. The Department is currently participating with the Federal Bureau of Employment Security in a national study to extend knowledge of job openings in certain labor markets.

  Current labor market information is used internally by the Department of Employment. It is published only in brief forms like lists of shortage occupations or statements on current local labor conditions usually developed by the Department's individual mobile offices.



- *Occupational Guides.* In the past eight years, the Department of Employment has developed nearly 400 "Occupational Guides," each one describing a single occupation's employment requirements, training requirements, job opportunities, working conditions, and pay scales.

  The main purpose of the occupational guides is to provide counseling information to schools and the Department of Employment. They also serve to indicate changing job content, for they are developed by Department analysts working with employers.

  The chief defect of the occupational guides is that they do not provide perspective on the entire labor market or even an entire industry. Another shortcoming is that every occupation cannot have its own guide. The *Dictionary of Occupational Titles* includes 4,000 titles describing 20,000 different jobs!

- *Manpower Projections.* To estimate future and current job vacancies in an entire industry or labor market, the Department of Employment uses two techniques.

  First is the "skill survey," which solicits information from a sample of employers as to their current and future needs. This kind of survey is limited by the willingness of employers to cooperate, their ability to forecast accurately their needs, and the organization of the method, which tends to elicit only broad descriptions of existing conditions.

  The second projection technique is based on analyzing current trends in the labor market, in population, and in industry, and then projecting the trends into the future. An advantage of this technique is that the many sources of data can be used, and they tend to act as checks and balances on each other. This technique is limited by the competence of the economic analysts.

The use of forecasts of any kind is subject to overriding restrictions. Projective techniques are not intended to provide a picture of the future. They are rather a tool for planning, and the trends they indicate are the logical products of a set of assumptions. If the trends prove wrong, the original assumptions must be discarded. The value of projective techniques is that they offer a logical approach to all the information available, a reasonable and consistent way of adding new information, and a working basis for planning.

Discussion

None of the panelists, Mrs. Thal-Larsen pointed out, really answered the question of "How Future Manpower and Training Needs Can Be Identified." She reviewed Sol Swerdloff's analysis of three ways to determine future labor needs:

1. Ask the employer. This method removes responsibility from the forecaster, but most employers cannot predict their long-range needs, and certainly they cannot speak for employers in new industries that haven't been invented yet.
2. Extrapolate straight-line trends. This method is simple, but as Mr. Gershenson warned, directions change.
3. Accumulate all available information on occupational changes. But occupational changes are based upon changes in industry, which are based on changes in public policy, which is determined by an unknown future.

Mrs. Thal-Larsen added the hope that other disciplines—perhaps a combination of industrial engineering and psychology—can suggest additional methods of projection.

In addition to the problem of gathering information for forecasting purposes, there is the problem of distributing information to users. In what forms do people need occupational information? Is it necessary to indicate trends in certain occupations locally as well as nationally? To what extent do counselors need qualitative information?

Mr. Gershenson predicted that immigration would maintain its pattern of many young people coming to California looking for jobs rather than old people coming here to retire.

Dr. Davis said that the primary indicator in the decision to substitute mechanical substitutes for human endeavor is the "cost differential." Given a particular industry's total costs for costs of labor, capital, and equipment, his research group may be able to predict whether a particular type of technology or device would be adopted by that industry (unless the industry is more interested in maintaining a particular market position than in costs).

Mr. Gomsrude described the technician as the man between the blue collar worker and the white collar worker—perhaps a gray collar worker. Mrs. Thal-Larsen thought this shade might soften public prejudices.

Mrs. Thal-Larsen asked Mr. Gomsrude how much lead time aerospace advisers to schools could allow for technician courses. Mr. Gomsrude replied lead time is partially determined by the urgency of a given situation. The aerospace industry is working closely with the Department of Employment to update their *Dictionary of Occupational Titles* and interpret industry requirements. Constant consultation is required.

Mr. Knowles said that one of the problems of predicting manpower needs in the construction industry is that practically no reliable information is available. The only reason that he was able to cite figures for the 1960–1964 period, he said, was that the pension funds came into existence then and manhour figures were available.

Mrs. Thal-Larsen reminded Mr. Poyer that he had said that some employers felt that responsibility was more important than a high school diploma. She asked if responsibility could be taught and tested, thereby opening up jobs to responsible people lacking a high school diploma. Mr. Poyer said it was hard to prescribe training for jobs that do not require a high degree of skill. He thought that in some cases the requirement of a diploma might be merely a method of weeding out job applicants.

In answer to Mrs. Thal-Larsen's question, "Finally, assuming that what we need are overall industrial and occupational projections probably for two, five, and ten years for the state as a whole in some areas, plus a continuing flow of qualitative information, plus a continuing revision of the information we do have, what do we need to get started right now and what do we need first?" Mr. Mayall answered, "Money."

In response to a question from the floor, Mr. Mayall said that he had no solution to the problem of whether to teach specific skills to meet the needs of small employers or give broad basic training to suit large employers. He said that the tie-in between on-the-job training and vocational training is not clear. One participant said it is possible to provide first the basic skills and then the required specialization.

Harold Hill, Assistant Superintendent, Secondary Education, Mount Diablo Unified School District, asked how schools can get the information to justify their training programs on the basis of need. Mrs. Thal-Larsen answered that the Department of Employment sometimes can justify the need but often has this problem in framing its own MDT training proposals. The question points up the need, she said, for a coordinated, comprehensive system of labor market information that can give these answers for the school district, the metropolitan areas, the state as a whole. Again, "What do we need to get started?"

When one participant suggested that the answer lay in data processing, Chairman Vial pointed out that machines could not make the policy decisions involved in a manpower program. Dr. Davis added that computers can turn out information no better than the information that is fed to them. "We have the computer and data processing mechanisms to disperse information," he said, "and they could do it right now if we knew what information to put into the computers. And if, indeed, we had a way of getting the information."

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DISCUSSION SECTION THREE

The Role of Business and Industry in Vocational Education

TODAY'S BUSINESSMAN MAKES decisions while looking to the future, not to the past. Dr. Gray pointed out that both schools and government should share the same point of view. Students should not be trained for what was needed last year, or even this year; they should be trained for what will be needed in the future.

Change is inevitable. There are changes in products, tools and techniques, raw materials, and, above all, changes in job content. The rate of change is likely to increase in the future. Mr. Knapp said that in five years, 25 percent of the work force will be producing products not in existence today. A basic problem, then, is how to fit and train workers for this whirlwind of change.

Dr. Arnold pointed out the need to match people with jobs. In this matching process, democratic methods should be used rather than an arbitrary, preplanned assignment of job quotas. This is the more difficult, but in the long run the more profitable, method.

Educational Rejects

Mr. Boynton discussed the high number of "rejects" produced by our educational system. He cited a publication of the U.S. Office of Education, *Education for the Changing World of Work*, which points out that

CHAIRMAN: Herbert W. Rubottom, Chief, Educational Services, General Dynamics-Convair, San Diego

MODERATOR: Lee Ralston, Director of Practical Arts, Office of the Los Angeles County Superintendent of Schools

PANELISTS: Walter Arnold, Assistant U.S. Commissioner of Education, Vocational Education Services, U.S. Office of Education, Washington, D.C.; Ralph E. Boynton, Vice-President, Training and Development, Bank of America, San Francisco; John Carroll, Director of Education, California Labor Federation, AFL-CIO, San Francisco; Volney H. Craig, Jr., Manager, Limoneira Co., Santa Paula; John Dobrei, Supervisor of Education and Training, Aerojet-General Corp., Azusa; Robert D. Gray, Professor of Economics and Industrial Relations, California Institute of Technology, Pasadena; Henry Gunderson, President, Professional Administrators and Coordinators Association of California, San Jose; Charles F. Hanna, Chief, Division of Apprenticeship Standards, State Department of Industrial Relations, San Francisco; David Hurford, Vice-President, Sears, Roebuck Foundation, Pacific Region, Los Angeles; F. A. Knapp, President, Associated Printing Industries, Berkeley

RECORDERS: William E. Fox, Harry K. Wolf

of ten students in elementary school, three will not finish high school. Of the seven who do, three will go to work, some as wives and mothers, while four will go on to higher education. Only two of these four will complete four years of college. Mr. Boynton expressed concern that although many have the potential, few graduate from college.

Another publication, *One Third of a Nation,* also furnishes information about this problem of educational rejects. For instance, one-third of America's young men turning eighteen today will be found unfit for military duty. One-half of this one-third will be unable to qualify because of medical reasons. The other half will be disqualified because of failing to pass the mental tests. Of the mental rejectees, 40 percent will not have gone beyond elementary school and 80 percent will not have finished school. If business and industry had such a high percent of rejects of their products, they could not afford to remain in business.

It was suggested, however, that industry should stop looking on education as an assembly line operation with a high rate of failure; it is time for businessmen and educators to stop merely talking together and to start acting together. An attempt should be made to get industry and education to "cross over into each other's worlds" so that each will have a better understanding of what the other is trying to do.

Two of the panelists said that school standards should not be downgraded to reduce failures; rather, they should be upgraded to meet the requirements of industry.

Dr. Arnold, in his summary, indicated that the greatest need in vocational education today was programs which would meet a variety of needs and appeal to large numbers of individuals.

Kinds of Training

A decision must be made as to what should be taught, or what training should be given, and who should give it. This training function should be divided between industry and schools. Schools should provide the training which they are uniquely equipped to provide, while industry should decide what it can safely provide after the student is out of school. In addition, there are areas where each can cooperate in training the individual.

Industry speaks of vocational education in many ways. This variety of attitudes has resulted in shortages of trained manpower in some occupations, while there are labor surpluses and unemployment in others,

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primarily among the unskilled. Training is the catalyst to resolve this dilemma. The content of training courses must be matched to job requirements; course content must also be kept fluid because of job changes.

Dr. Arnold urged that vocational education take place at all levels of the educational system, because individuals at different levels have different needs. There are many examples of training provided by industry and labor. Mr. Knapp spoke of the schools for tradesmen now being built and in operation, which are generally financed out of industry educational funds. He also pointed out that a major problem today is bridging the gap between schools and entry into employment, except in the professions. One way of bridging this gap is through apprenticeship programs—providing on-the-job training as well as training in the classroom. One can earn while he learns. The annual cost per apprentice is far less than the yearly cost of a college education; yet, the apprenticeship program is decreasing, nationwide. In California, however, there has been substantial growth in this program. There is still some employer resistance from those who feel that a first-year apprentice does not return enough to the employer.

Dr. Arnold also pointed out the inadequate reporting of supply and demand in employment opportunities. Many statistics about the supply of jobs are given as total figures, rather than as more hopeful subtotals. Records should also be kept of student placement resulting from specific training and the effectiveness of trained students in specific jobs.

Questioned as to whether there should be a county or district vocational training center, or whether facilities should be expanded at the school district level, Mr. Ralston responded that since we are committed to a comprehensive high school, technical training should be given there. One of the panelists said that many high school students are not ready for vocational education until perhaps their senior year. Therefore, in his opinion, vocational education would be better placed at the post-high school level.

Funding for Training Programs

Funds for training programs are provided in various ways. The federal government provides many of these funds, and often the states provide matching funds. In addition, labor contracts often provide for educational funds. Mr. Knapp briefly discussed a proposed tax credit to participating companies that sponsor apprenticeship programs. During the discussion session, a union representative pointed out that his union opposed such a program of tax credits for employers. The union position is that management and labor should work out training programs through collective bargaining. More than money is needed, however, to stimulate the interest of young people in skilled trades.

Coordination and Communication

Stressing the need for trying to find a means of coordinating the efforts of education, management, and labor, Mr. Knapp declared that vocational education is "the hottest thing in the United States today, with everybody getting into the act." However more directions and coordination are needed.

Mr. Boynton talked of poor communication between government, industry, and labor unions as to what is needed and what is produced by schools. He felt that industries would take more interest in the school system if they, for example, had to subcontract for education as they subcontract with many of their suppliers. In a sense they do, since taxes levied on industries help pay for education.

The excessive number of school courses now required by law has greatly reduced the elective courses available to the high school student; this has created a problem which could be solved by more effective communication with the community and state.

Promotion of Vocational Education

Several suggestions were made by speakers for promoting vocational education and for solving some of the problems identified during the conference. Included were vocational fairs and skill contests to help in stimulating young people's interest, and work experience and cooperative training programs for employed workers. These programs have met with varying degrees of success.

Business can provide training specifications, job and technical information, and changing job competency requirements for the schools. Equipment and materials can be provided for teachers. A clearing house at the state level, in each state, is needed for the orderly planning of these programs. However, in spite of such programs, industry, government, and the schools have grown farther and farther apart.

Mr. Boynton cited counseling as the key solution to some of the problems in vocational education today. There are too few counselors, and it takes too long to train them. There is so much rapid change in industry today that it is difficult, if not impossible, to keep the counselor informed of all the changes that are taking place. In addition, much pertinent information is not published and thus is not available to the counselor.

Declaring himself disillusioned with career days and mass attempts at counseling, Mr. Boynton suggested that counseling should be done on an individual or small group basis and continued throughout the school year. Industry's attempts to talk to students through teachers, administrators, and counselors have not been successful enough. Industry should now talk to students directly.

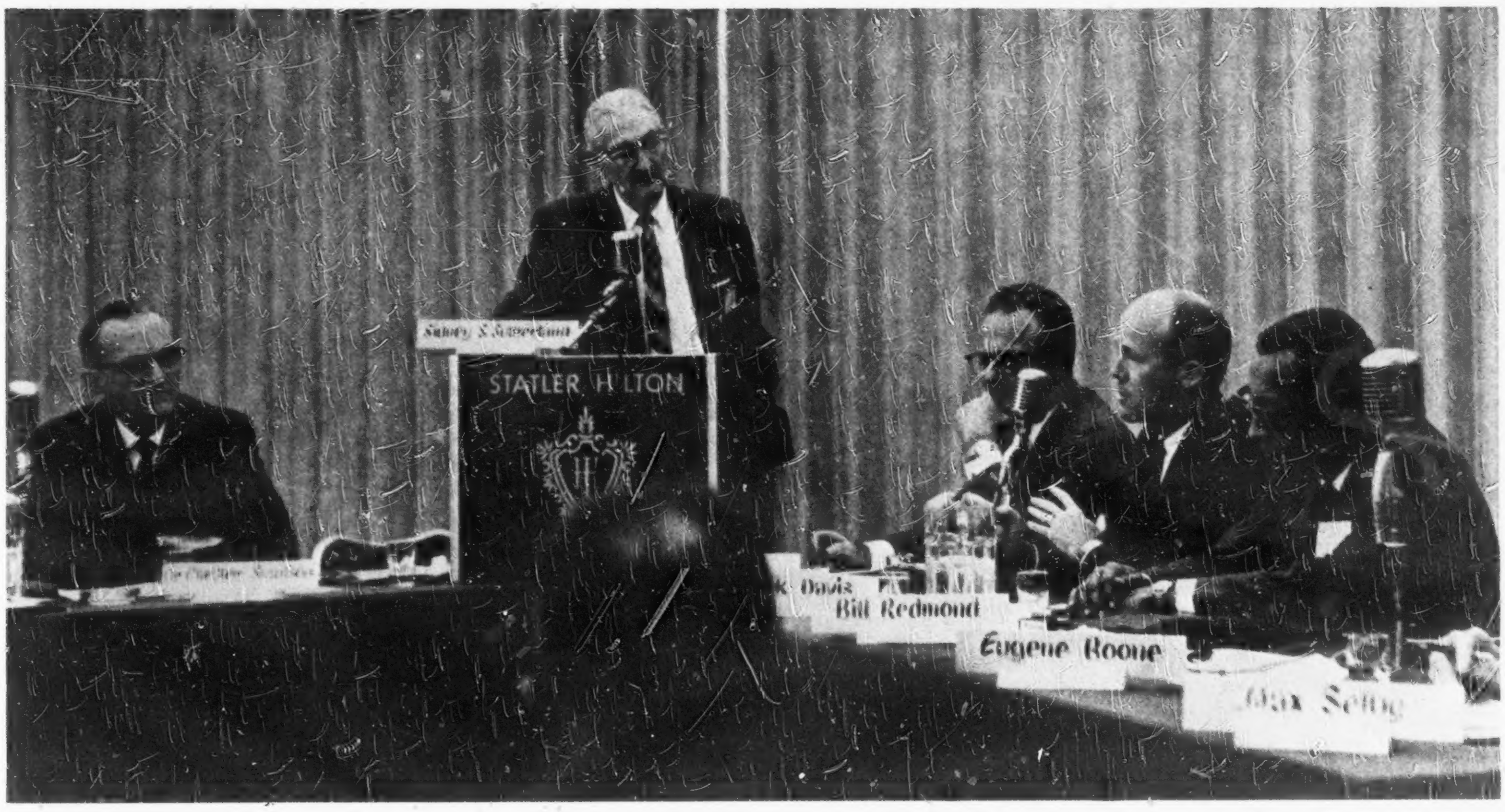
The counselor's role should be changed to that of vocational counselor-coordinator. The counselor-coordinator would not talk to students about jobs, but he would arrange for small groups of students to meet with representatives of business, government, and the professions. Individual sessions with interested students would follow the small group meetings. Perhaps in such meetings the student "failure" might develop some acceptance of his teachers' previous advice.

Ways were discussed in which labor unions could be interested in high school work experience or exploratory programs. Suggested were bridges of communication between the schools and local union officers. They should talk and share together in the formulation, planning, and action stages of solving problems related to cooperative effort.

A labor union representative in the audience stated that his union did not want the high school student to get summer job experience, since there is now an excess of workers for available jobs. Instead, he suggested schools should teach students basic principles and techniques, rather than providing work experience.

Job Opportunities in Agriculture

Discussing trends in agricultural employment, Mr. Craig pointed out that opportunities are expanding as rapidly in agriculture as in any other industry. In the past, agriculture has been able to draw on a reservoir of trained individuals. Few trained people have been entering the field recently, however. Many trained individuals are now of an advanced age and will be leaving agriculture, thus opening up more jobs.



DISCUSSION SECTION FOUR

The Responsibility of Public Education for Occupational Proficiency

Conferees spoke of the causes and consequences of vocational education's low repute. One consequence was illuminated by Dr. Richardson, when he pointed to the effect that occupational training's poor reputation has on parental attitudes and the consequent pressures exerted by parents against vocational programs and against occupationally oriented guidance in the schools. Such pressures, he said, yield a growing population of student failures—children who do not happen to be responsive to, or motivated in, a purely academical educational program.

But participants dealt a sharp blow to the popular and oversimplified belief that vocational education is, by itself, an answer to the dropout problem. In fact, one panelist said that the status—and success—of vocational education can be secured only by excluding the "dropout type" from vocational education.

Among the situations contributing to vocational education's poor public image, speakers identified these:

- Outdated curriculums in vocational education
- The inability to predict future skill requirements of industry and agriculture
- The paucity and, too often, the low quality of teachers in vocational education—a problem viewed as an effect as much as a cause of vocational education's poor image

Chairman: Sidney S. Sutherland, Professor of Agricultural Extension, University of California, Davis

Panelists: Eugene Boone, John Inglis Frozen Food Company, Modesto; Jack Davis, General Personnel Manager, Pacific Telephone and Telegraph, Los Angeles; Wilbur L. Fillippini, Vice-President, District No. 5, California Federation of Labor, AFL-CIO, Santa Barbara; Milo Johnson, President, San Jacinto Junior College, Beaumont; John M. Rand, Superintendent, Temple City Unified School District; Bill Redmond, State Department of Employment, Sacramento; Ralph Richardson, Associate Professor of Speech, University of California, Los Angeles; Max Selby, Training Representative, Hughes Aircraft Company, Newport Beach; Chester Swanson, Professor of Education, University of California, Berkeley

Recorders: Lloyd Kramer, Robert L. Maurer

Developing Curriculums and Meeting Needs

Representatives of education expressed their reluctance to have schools provide training in the specific skills that industry often requires, because of the likelihood that many specific skills soon will become obsolete. Mr. Davis agreed with the educators that schools might better provide the basic and general skills that are needed in virtually all occupations. However, smaller companies without their own training programs would continue to require specific skills as a condition of employment.

The special vocational high school was proposed as a means of offering training in those vocational skills not now offered in most of the schools in California. Most conferees agreed, however, that the comprehensive high school should be preserved, and that there was a considerable risk that the special high school would merely serve as a reception center for problem children. Most of the group also agreed that the junior colleges should play a central role in vocational education. Many hastened to add, however, that the high school has an opportunity to make a most important contribution by providing intensive vocational guidance and by offering a wide range of elective vocational courses.

Speakers suggested that, in developing curriculums, the junior colleges must have or find the means to react quickly to market requirements. While this involves constant investment in new equipment, Dr. Sutherland pointed out that the service trades represent the fastest-growing area in industry, and only a minimum of equipment is required to offer training to students planning to seek employment in these fields.

Securing Qualified Teachers

The shortage and disparate quality of vocational teachers were related directly to the publicly held negative associations surrounding industrial and agricultural labor. It was emphasized that this problem, which tends to create poor teaching situations, has served to reinforce the negative image the public has had of vocational education. It was pointed out that many vocational education teachers are retired craftsmen, out of touch with newer technology and current market requirements. This weakness tends to hamper the success of vocational education programs in the schools.

Dr. Richardson noted another factor bearing on the status of vocational teaching: There is no adequate way to apply or relate conventional academic criteria —those by which most teachers are ranked—to vocational teachers with experience in industry. Dr. Richardson asked whether industry could provide qualification standards in occupational areas, which the schools could use to provide ranking and status to vocational teachers. Such standards, when accepted by other teachers and the community, would redound to the benefit, dignity, and status of vocational educational teachers and, thereby, to vocational education itself.

Solving Problems in Vocational Education

The panelists viewed education's position with respect to occupational preparation in terms of a complex array of related problems, all of which seemed to be tied in—either in terms of cause or of effect—with public attitudes toward vocational education. The solutions to these problems, as viewed by the panelists, are presented in the paragraphs that follow.

Several speakers characterized the students whom the schools have failed as "the third group," the other two groups being the academically oriented and the occupationally talented. Mr. Redmond spoke of reducing the size of the third group by a special program of preparing young children from culturally deprived homes to enter school on an equal footing with other children. Dr. Richardson described federally supported experimental programs of this type now in progress in Los Angeles and elsewhere. He indicated possibilities of success, but he suggested that such a program, on a broad scale, would be very expensive.

On the subject of growing obsolescence of previously acquired skills, Thomas Johnson of Whittier High School spoke from the audience of the important role which must be assigned to adult education in occupational retraining.

Most speakers advocated refurbishing the image of vocational education, but all agreed that this is not a mere public relations problem. To shed the public disapproval which has clung to occupational preparation, vocational education must *be*, as well as *appear*, successful. To succeed, it must have teachers specifically trained as vocational education instructors. This was particularly emphasized by Mr. Fillippini. In addition, Mr. Selby indicated that good vocational teachers will have to move back and forth between industry and school in order to keep in touch with modern technology, skill requirements, and market realities.

Mr. Boone cited research indicating that any successes achieved in dealing with "the third group" can all be traced to the presence of highly motivated teachers whose missionary zeal stimulates students to the degree that they become motivated to learn and succeed.

Further, to be a success, vocational education must be able to depend upon active guidance programs and identification of the occupationally talented at an early age. This is a job for the junior high and the high school. Dr. Sutherland emphasized that guidance is a key element in vocational education.

Also, the schools must stop perpetuating the invidious distinction between professional and vocational education. Toward this end, Mr. Redmond urged that the schools be prepared to do more than placate their own communities. He further suggested that the Department of Employment be permitted to offer occupational guidance to young people.

Mr. Rand commented that there are students who cannot perceive the significance of education without first having worked. Through a work-study program, such students can learn both the dignity of labor and the importance of study.

To the problems involving public education and occupational preparation, the panelists and conferees suggested several solutions. Most were aimed at making vocational education a successful and success-producing activity.

STATLER HILTON
MRS. JONES

DISCUSSION SECTION FIVE

The Community's Responsibility for Vocational Education

THE PUBLIC SCHOOLS OF THIS NATION are committed to meeting the educational needs of every citizen—elementary school through college. And change in our society makes it imperative that both college-preparatory and vocational education be available to all these citizens—young and old alike. Schools must also realize that change is a permanent part of our economy. Students must be helped to understand that jobs and job requirements change and that all persons must be prepared to accept and adjust to change.

Part of the success in extending vocational education to more youth and adults will depend upon teachers and the community developing a more positive attitude and a greater appreciation for craftsmanship and occupational competence. There must be renewed awareness of the dignity of labor. And respect for a job well done must also be stressed as a part of vocational education. In addition, our complex and rapidly changing economy increasingly requires many different skills and abilities, all of which place a greater responsibility on the public schools to offer comprehensive programs to serve all youth and adults.

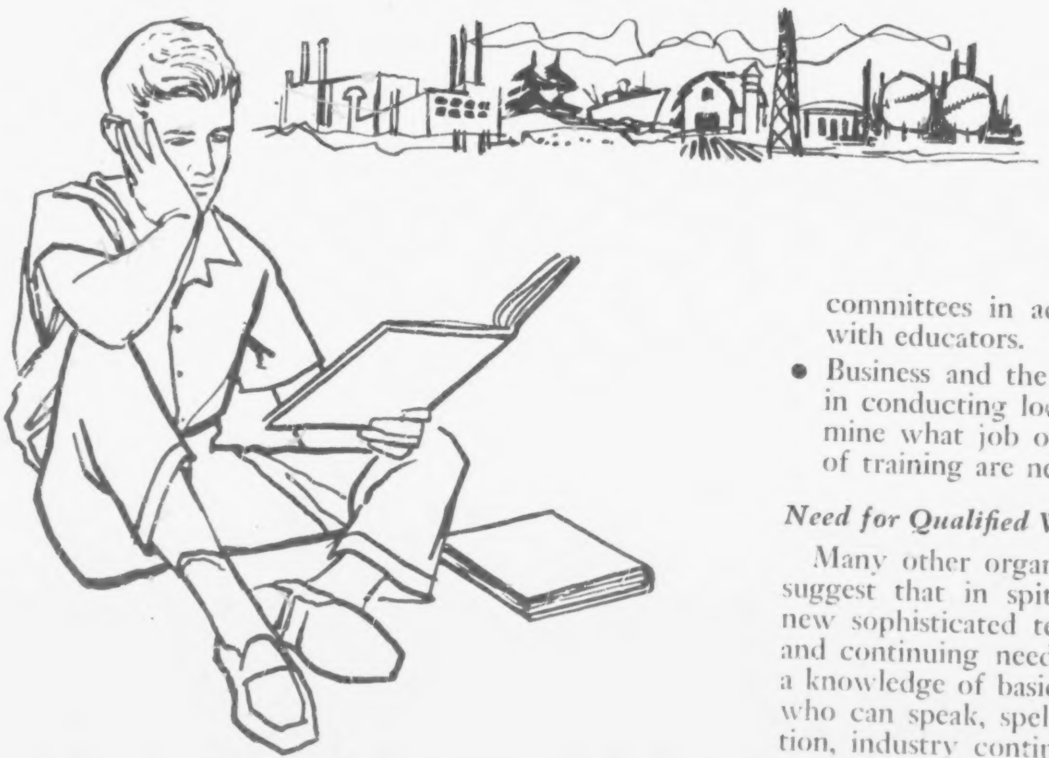
CHAIRMAN: F. A. Grunenfelder, Orange County Superintendent of Schools, Santa Ana

PANELISTS: Roger Jessup, President, Jessup Farms, Palm Springs; Mrs. Barbara T. Jones, District Manager, Western Girl, Inc., Long Beach; Hyman Weintraub, Executive Secretary, Teachers Guild, Los Angeles; Norman E. Watson, Superintendent, Orange Coast Junior College District, Costa Mesa

RECORDERS: Daniel C. Chase, Oliver A. Batcheller

The Role of the Schools

An increasing number of public schools are striving to improve and adjust their offerings to prepare people more effectively for gainful employment. Many schools are developing systematic programs of post-high school education, including special programs for dropouts. One example of such advanced thinking is a summer school for dropouts conducted in Orange County.



Schools can more effectively serve a broader spectrum of occupational needs if there is dedicated spirit, systematic planning, and adequate financing. The bulk of the school-age population must now have more preparation for entering business and industry in addition to the many other facets of our economy. We are at the point where skills and abilities required in the world of work suggest that vocational programs can no longer serve as a dumping ground for academically poor students. The image and actualities of vocational education must be altered to reflect a more positive, hopeful, and rewarding phase of our educational system.

The Role of Industry

In the business world and throughout our communities, there is an increasing awareness that the schools cannot do the vocational training job alone. Industry and lay persons must provide more than financial backing. They also must assist occupational education by identifying occupational opportunities and by helping develop new vocational education offerings—courses that will prepare people for new types of jobs and at the same time assist all students in recognizing and avoiding those jobs that are rapidly being phased out.

Fortunately, many business leaders and companies are among those providing this kind of assistance. The Administrative Management Society has recommended that its members follow three broad objectives in working with schools:

- Members should cooperate with schools in curriculum planning and development with particular reference to the office occupations.
- They should seek representation on boards of education and be willing to serve on business advisory committees in addition to working more closely with educators.
- Business and the general community should assist in conducting local and national surveys to determine what job opportunities exist and what kinds of training are needed to fill such jobs.

Need for Qualified Workers

Many other organizations in business and industry suggest that in spite of automation and the many new sophisticated technologies, there is still a great and continuing need for qualified workers who have a knowledge of basic arithmetic and mathematics and who can speak, spell, and write effectively. In addition, industry continues to appreciate those employees who come from the public schools with a sense of responsibility and good work habits.

There is continued recognition that although employees need to be prepared for such broad concepts as citizenship and cultural understanding, in some ways it is even more important that young people have some specific marketable skills. Regardless of the amount of training or education a person has had, it is generally recognized that problems related to personal traits account for more failures on the job than does a lack of manipulative or technical skill. Thus, vocational education has a responsibility for strengthening and encouraging the development of desirable personal habits and attributes. It is generally agreed that a worker who can get along with other people makes a good employee, and human relations must be a key ingredient in vocational preparation.

The Role of Vocational Education

Perhaps one of the most effective ways for minimizing the costs of supporting welfare recipients and the unemployed would be the expenditure of tax monies for vocational education rather than for charity-type programs. Such thinking suggests that the public schools should provide some broad background to assist students in adjusting to different jobs and to different life situations. It is also apparent that our schools must increasingly provide for an ongoing education. Education is a constant process in all of its phases, including occupational education.

A revival in our society of the concept of the dignity of labor would seem appropriate as change presses upon us the need for more systematic vocational education. One of the main values of a course of training is in giving dignity to labor. The making of a lamp or a piece of furniture is perhaps less important than learning to do one's best and feeling the responsibility of doing nothing less than one's best. Such attitudes can be fostered by teachers.

ATLER HILTON

One of the most critical aspects of vocational education is that many teachers and counselors are unable or unwilling to keep up with changes in industry. Keeping up to date is a full-time job. The opportunities that are available and the training that is needed to meet these opportunities require time and attention. But such efforts must be made if we are to bridge the gap between school and gainful employment.

Vocational education has always been an important part of the American education system, but it has reached new heights of importance in recent years, primarily because of the attention that has been focused on the rise in unemployment and the threat of automation. We are facing a national emergency in vocational education.

American ideals are closely allied with material production. We are a commercial nation. There would seem to be three pervading elements underlying the current need for emphasizing vocational education.

- There is a need for diversity among vocational education programs. Vocational education programs now require a scope greater than anything we have ever developed before. Vocational education, now a necessity for all, is charged with doing a more comprehensive job.
- There is need for education for change. Education must be flexible and resilient and should provide a basis upon which individuals may build successful careers and lives. Jobs and job requirements keep changing, and adjusting to these changes is part of modern-day life.
- There is need for continuous, lifelong education. Education is a growing process, with students continuing to be students throughout life. As automation accelerates, so does the need for education.

How do the schools, lay persons in the community, business, industry, and labor bring about expansion and improvement of vocational education and occupational preparation for all youth and adults? One very practical approach would be to follow these guidelines:

1. Determine job needs and educational preparation for meeting them.
2. Determine whether such needs and their requirements are appropriate to a particular level of education; e.g., high school, junior college, adult school.
3. Develop the curriculum or training program.
4. Plan and provide facilities, equipment, and supplies.
5. Recruit and train instructors.
6. Recruit students.
7. Offer the course of training.

8. Evaluate the educational program and the performance of former students when they are on the job. Follow up and make changes as needed.

Recognition of, and appreciation for, vocational education's role in society lead toward improved programs of occupational education. A dedicated spirit and cooperation among schools, the general community, labor, industry, and business are essential if vocational education is to serve youth and adults in the decades ahead as effectively as it has in the past.

Summary

Not enough communities have adequate, effective vocational programs. With good programs it would be easier to awaken school officials, accrediting agencies, parents, and students to the importance of vocational occupations in our society, as well as the opportunities in vocational work and the personal satisfactions derived from it.

Ideal programs must be adequately equipped with modern machinery and curriculums programmed to occupations that will exist when the students graduate. The courses must be taught by enthusiastic, dedicated teachers who have had work experience in their specialty areas, who keep up to date, and who can convey the dignity of labor and awaken an appreciation for craftsmanship. Vocational teachers who meet these high standards of accomplishment should have the same pay and status as their academic peers.

One of the greatest weaknesses of the total school program lies in the counseling of students by well-meaning individuals who have never been in business or have never held a job other than teaching. These individuals often are unaware of the excellent opportunities available in the business world.

STATLER HILTON

DISCUSSION SECTION SIX

Work Experience Education and Vocational Education

CHAIRMAN: Henry Tyler, Executive Secretary, California Junior College Association, Modesto

MODERATOR: Norman Eisen, President, California Work Experience Educators, Whittier

PANELISTS: Edna Fife, Personnel Director, Sears, Roebuck Company, Pomona; Stanley Graydon, Secretary, Sheet Metal Joint Apprenticeship Committee of Orange County, Santa Ana; David MacPherson, Director of Vocational Agriculture, Victorville High School; Milton F. Reiterman, Supervisor of Occupational Preparation, San Francisco Unified School District

RECORDERS: Robert J. Healey, William Kirkpatrick

EACH PANEL MEMBER TOLD the audience of his activities in a successful work experience program. The audience learned of the fruitful efforts of a vocational agricultural instructor in a small agrarian community, of the diversified program possible in a large industrial complex, of the success enjoyed by a business concern which developed a cooperative program with a community college, and of the rewarding results of an apprenticeship program developed by a trade union in cooperation with local community colleges.

The programs described were as varied as the interpretation of work experience. They included programs designed to meet the needs of the school dropout as well as students planning to go to college; programs in agriculture, distributive occupations, office occupations, and the trades; programs for those with much experience as well as those with none; programs to meet the needs of the mature as well as the immature youth; programs which provided no income to the participant and those which offered pay equivalent to that of full-time employees; programs underwritten by the participants and those aided by governmental funding.

Despite this diversity, the programs had a common theme: They were all designed to complement the total training of the youths who participated; and in the opinion of those associated with the program, they were meeting these goals most successfully.

Why Are These Programs Considered Successful?

The term "successful," as it was used throughout the discussion, seemed to center upon a satisfaction quotient. To be successful, a program needs to meet the needs of the participating students. Ordinarily, the needs of students as expressed by educators are not needs that students themselves recognize as being of immediate importance. It was emphasized that these work experience programs, however, were not successful until the students realized satisfaction of their needs as they saw them.

It was pointed out that many students drop out of school because of their inability to identify their long-term needs. Potential dropouts often do recognize the need for a job, however, and accept what must be learned to succeed on the job. In other words, working for grades may yield little satisfaction, whereas working on a job to meet the demonstrated need of an employer may give students a deep satisfaction.

Employers indicated a degree of satisfaction from their participation in these programs. Miss Fife indicated, for example, that she had accepted as employees submarginal students who, when they proved that they could be successful, gave her a personal satisfaction from having taken part in their learning program. Mr. Graydon indicated that his organization's apprenticeship program offered a better opportunity for the selection of qualified future journeymen than any other program.

The employer seems to profit, said one panelist, from the experience of examining a student's potential on a level at which the employer does not expect profitable production immediately and then watching the student grow to a level at which he becomes a productive employee.

School coordinators commented on personal satisfactions which they said could not be realized in other types of programs. Frequently, they are in a position to observe dramatic changes in students participating in a work experience program—changes in attitude toward school, in personal self-regard, in aspiration, and in maturation. They have seen their programs grow in stature with students because work experience opportunities are desired by many students but are restricted to those participating in the school program. Educators can feel a community response to this type of effort also.

Why Aren't There More Programs?

The primary reason that there are not more work experience programs is probably apathy. The teacher who conducts such a program is likely to work much harder than those who rely upon presenting material in more traditional ways. The first step in developing a successful program is to ascertain that the teacher-coordinator is both skillful and dedicated—that he is willing to work as hard as is necessary to ensure a successful program.

Such a program cannot succeed unless it has the cooperation of all participating parties. It is not always easy to encourage uniformity of purpose among agencies with differing goals, such as the school, business, and trade unions. Not only is organization of a cooperative effort a deterrent to many programs, but also their very nature requires more time and travel, which makes them more expensive than most educational programs.

Cost certainly has been a deterrent in the past, and those who might profit from offering work experience programs are not always aware of potential sources of supporting funds. It was suggested to those attending the session that information on the types of work experience programs for which funds are available and the ways to procure these funds could be obtained by contacting the State Department of Education.

What Are Some of the Problems?

It was obvious from the discussion that even the most successful programs are not operated without problems. Considerable discussion centered on the legal implications of the hiring of minors and the effects of this hiring on workmen's compensation, unemployment insurance, and union affiliations. It was suggested that evidence would indicate that accident rates do not increase with the employment of minors in these controlled programs, and that in many cases the school district assumes the financial obligation for workmen's compensation for students who are a part of a noncompensated program. It was further indicated that the term of employment is usually of such a duration that the student-employee does not qualify for unemployment insurance nor does the school coordinator countenance any application for unemployment insurance. It is unusual for a work experience program to cause difficulties with union activities. Programs are usually not available in those areas where the unemployment rate is high; and in most cases where union affiliation is necessary for employment, students have willingly complied with, or been excused from, this responsibility.

How Can More Successful Programs Be Developed?

Those representing the employers said that the schools should take the initiative in developing successful programs. Most employers are ready and willing to cooperate if an enthusiastic coordinator comes to them with a well-defined program. Too often, in the opinion of one employer representative, a program of this nature is initiated by administrative action and then assigned to a faculty member who has neither training nor inclination for it. Too many programs are marginal because of inadequate coordination. The schools must develop people who are trained in work experience education and who have the knowledge and zest to ensure results.

It was claimed that too often the coordinator lacked knowledge and appreciation of the work that the student would be called upon to do on the job. In fact, one personnel director indicated that many programs were so ineffective that she did not feel it significant to include on an application blank the notation that the applicant had participated in a work experience program. She said that job success depended largely upon one's ability to "get along" rather than upon specific skills learned in school, and that many work experience programs were not helping students develop this ability. The coordinator must set the tempo for the attitudes to be developed on the job, and employers felt that it was his responsibility to be an active troubleshooter in keeping friction between the student and the employer at a minimum.

It is often the student with the least capacity and motivation, the one who creates the most negative reaction when seeking employment, who most needs the benefits of the program. It is the responsibility of the school coordinator to develop a rapport with his local business community to create a willingness to accept students who can profit from a work experience program. He should zealously promote the success of his students.

It sometimes happens that a community is not large enough to support a work experience program. The recommendation to use the services of the office of the county superintendent of schools was offered. With the recent surge of federal activity in providing funds, work experience programs are now fiscally feasible for all sizes of school districts. A sufficient body of evidence indicates that the business community is ready to cooperate, and there is a large segment of the school population for whom this type of program meets a need. All should learn what the school district can do to implement a work experience program. Local programs will gain by contacting the State Department of Education, particularly the Vocational Education Section, which stands ready to offer information and assistance.

DISCUSSION SECTION SEVEN

Vocational Education and the Socioeconomically Handicapped

MEMBERS OF THIS SECTION discussed work opportunities and the kinds of specialized education and training suitable and essential for those persons who have socioeconomic, educational, or other handicaps. The basic assumptions of the panelists were that all persons should have an opportunity for education and training to prepare for work commensurate with their abilities.

Inadequacies of Traditional Education

Education of a purely academic nature does not prepare some individuals, particularly the socioeconomically handicapped, for useful, economically productive places in society. Many such young people, insufficiently motivated by the traditional academic approach, become dropouts and swell the ranks of the unemployed or are placed in correctional institutions. Allen Cook, Superintendent of the Deuel Vocational Institute, pointed out that many students are bored with their academic subjects, do poorly, and are dismissed from school. When these boys and girls get into trouble and are committed to correctional institutions, their home community absolves itself of further responsibility despite the fact that 98 percent of the inmates eventually return to the same community. These young people regard themselves as failures, and others regard them likewise. They are of average intelligence, but manifest a dislike for academic education. At institutions like Deuel, they are given the opportunity to learn a useful trade.

CHAIRMAN: Joseph C. Bellenger, Director of Vocational Education, San Jose Unified School District and San Jose Junior College District

PANELISTS: Allen Cook, Superintendent, Deuel Vocational Institute, Department of Corrections, Tracy; Leo R. Lopez, Consultant, Compensatory Education, State Department of Education, Sacramento; Robert R. Wheeler, Director of Special Urban Educational Services, Oakland Unified School District

RECORDERS: Fernando Penalosa, Jewel M. Riddle

Had they received this type of vocational education in the first place, these youngsters might never have had difficulty with the law. Rather than being burdens on the taxpayers, they could have become useful taxpaying citizens. Because of the policies of some school districts, the federal government and state governments have set up expensive organizations to do the job that the schools should have done.

On the question of whether vocational education for students who are not culturally deprived should be the same as for those who are, it was indicated that wrongs already done to the deprived should be righted. In addition, the disadvantaged groups should be convinced that schooling is valuable; and vocational and nonvocational education should work hand in hand, not separately. The student must be able to apply knowledge immediately, not when he gets to college, if he ever does.

Dignity of Work

Mr. Cook emphasized that young people should be taught the dignity of work. This nation became great through work, not idleness. Scientists and engineers may devise beautiful blueprints for spacecraft, but nothing flies without the work of the man on the bench.

Mr. Lopez stressed the importance of children having, as a model, a father who goes to work each morning. In a large number of the socioeconomically handicapped homes, the father is either absent or unemployed. It is important to take culturally deprived elementary school children on study trips to see adults of their own ethnic background working in various trades and white-collar jobs.

Mr. Wheeler said that it is wrong to consider vocational education as a kind of second-rate education-training which is below academic education in value and prestige. Many skilled trades—that of machinist, for example—require as high a degree of specialized reading and mathematical skills as do some white-collar occupations. Therefore, vocational education should be recognized as the equal, if not the superior, of academic education, and the dignity and importance of manual skills should be underscored. The learning of the requisite skills and attitudes should begin even before age five.

Valuable Human Resources

Mr. Bellenger theorized that history has largely been the story of socioeconomically depressed people in various societies who started revolutions, initiated invasions, or brought about other changes. Society is now seriously taking upon itself the problems of helping these long-neglected people, because it realizes that these people are not contributing their full potential to society. Vocational education offers society the means for helping these people become productive.

Mr. Wheeler said that education ought to serve national purposes and contribute to the national growth and progress. Our citizens must develop skills which are salable on the labor market. Yet, one-third of our youth live in circumstances of poverty and present serious educational problems. About half will not finish high school. About one million young people between the ages of sixteen and twenty-four are neither in school nor working. Some are high school graduates, and some have even had some college training, but all are unemployable because of the purely academic training they have received.

Mr. Lopez affirmed that education cannot do the whole job by itself. Other sectors of national life, such as industry, should be expected to cooperate.

Mr. Cook quoted Secretary of Labor W. Willard Wirtz: "Every undereducated, undertrained youth from a poverty background entering our work force today will cost us approximately $30,000 in various kinds of welfare payments in the course of his lifetime. Either we help the youth or we support the adult."

Mr. Cook pointed out that through welfare and relief we pay people to be idle. He suggested that the nation could help itself by helping youth through paying the way for these young people to get vocational education training. "If we pay people to be idle, why can't we pay them to go to school?"

Identification of the Culturally Deprived

Mr. Lopez stressed the fact that the identification of the culturally disadvantaged child is not yet an exact procedure. The fact that he is, for example, an underachiever does not differentiate him from other underachievers if achievement is the only measure. Underachievement may occur for a variety of unrelated reasons, such as emotional disturbance, undetected physical disabilities, lack of native capacity, and cultural deprivation.

The culturally disadvantaged child usually displays at least one of the following traits:

- He tends to lack the social experiences which our present school curriculums assume to be common to all students. His experiences in the society are marked by sharp differences from the "normal" or "regular" pattern assumed by the middle-class oriented school.
- Deprivation in sensory and perceptual experience has retarded his development.
- Deprivation in symbolic experience has both impaired his language functioning and inhibited his conceptual development; e.g., children whose native language and subculture differ from American English and American culture.
- He has motivational orientations which are inappropriate to normal school achievement or success.
- He has acquired values and expectations which tend to generate conflict between himself and the school.

The environmental factors which seem to have the highest correlation with cultural deprivation, as shown by studies throughout the nation, are low economic status, alienated social status, and geographic isolation. This is not to assert absolute causation, for not all poor children, or all Negro children, or even all migrant children are automatically culturally disadvantaged.

The culturally disadvantaged, therefore, can be identified as children who are below average in school achievement and who are economically deprived, or are socially alienated or rejected, or are geographically isolated, or any combination thereof. Possible causes of these environmental factors follow:

- Economically deprived because the breadwinner is a nonproducer because of disability, age, or technological displacement; the breadwinner provides only a marginal economic existence; or the breadwinner is absent.

- Socially unintegrated because they belong to an unintegrated racial group; or a subcultural group which does not speak English and/or is culturally different.
- Geographically removed because they live in areas removed from adequate educational opportunities; or they live mostly or totally migratory or transient existence.

Importance of Understanding the Deprived Child

Teachers in particular should make every effort to understand the economically and culturally disadvantaged child and his background. Otherwise, no type of education will benefit the child appreciably, for he has not had the "normal" experiences assumed by the school. His motivational orientations and his symbolic experiences have been different. Teachers fail with these young people because they no not understand students from such backgrounds, not because they do not know how to teach their subject.

Mr. Lopez explained how compensatory education programs attempt to compensate for students' lack of appropriate experience. One-shot approaches, such as remedial reading classes, will not solve the problem. Approaches on many fronts are needed. Students must be shown the relationship of learning to life and to practical situations, particularly work situations.

Teachers must be sensitized to the needs and perceptions of the children. They must be alert to detect strengths as well as weaknesses and quick to capitalize on such strengths, especially as they are related to skills required for various kinds of occupations. Children must in turn be alerted to all kinds of vocational opportunities and understand and develop their own strengths in this regard. More effective vocational counseling is necessary at all levels of the school system, so that teachers can know their students better and students can know themselves better.

It was emphasized that in order for compensatory education to be most effective, it should be offered to children when they are very young—around three or four years of age. Even with preschoolers, favorable attitudes toward learning and work can be inculcated.

The panelists agreed that for maximum effectiveness, the planning of vocational education and other programs for the socioeconomically handicapped youth should involve both parents and peer groups.

Pilot projects in compensatory education have cost an estimated $150 a pupil, but an estimated annual expenditure of at least $500 per year per pupil over and above normal costs is recommended to achieve minimal results.

The discussion group was cautioned not to refer to special programs at the elementary level as "vocational education." Vocational orientation of elementary school children of disadvantaged background is simply part of the much broader problem of exposing young children to the whole world of work, not just those kinds of work that involve the manipulation of tools. Children should be exposed to the service occupations and professions as well.

Future Considerations

It was pointed out that programs were needed to take care of children without ability as well as those with ability. The discussants in the section had tacitly assumed that all young people had some sort of ability.

The panel discussion did not include any treatment of vocational training or retraining of socioeconomically handicapped or culturally deprived adults. This fact was pointed out in the discussion period, but the problem obviously constituted a broad area that merited separate discussion.

DISCUSSION SECTION EIGHT

Progress and Promise for Educating Adults for Employment

CHAIRMAN: Randolph Van Scoyk, Principal, Fairfax Adult School, Los Angeles

SPEAKERS: Leonard Freedman, Head, Department of Social Science, University Extension, University of California, Los Angeles; Mrs. Marilyn Sullivan, Older Worker Specialist, State Department of Employment, Los Angeles

PANELISTS: Laurence Belanger, Consultant, Pupil Personnel Services, State Department of Education, Sacramento; Leland W. Clark, Director of Adult Education, San Jose Unified School District; E. D. Goldman, Assistant Superintendent, Adult and Vocational Education, San Francisco City Unified School District; Jack Kadushin, Training Supervisor, Lockheed-California Company, Burbank; Harvey B. Rhodes, Dean, Division of Adult Education, Modesto Junior College

RECORDERS: Michael Slama, Samuel I. Bellman

THE ROLE OF VOCATIONAL EDUCATION for adults in our society was emphasized by the panelists in this section. The changing needs of an increasingly automated society make it imperative for us to reach more unemployed and underemployed adults. What kind of education should adults undertake? Education only for specific vocational skills which may soon be outmoded? Or education for a more broadly based spectrum of adaptations? The various methods of strengthening vocational education programs for adults are reported here in the order of presentation.

Mr. Van Scoyk pointed out in his introductory remarks that in 1850 more than one-half of the population of the United States was of school age (twenty years or under); by 1930 less than 40 percent of the population was of school age; and by 1975 it is expected that less than 25 percent of the total population will be of school age. In other words, by 1975, 150 million people of the expected 200 million population will be adults. Two-thirds of these 150 million will have completed high school. This seems to indicate that in order to achieve the Great Society which President Johnson wishes for us in this decade or even in this century, we must develop and maintain a very efficient education program for adults.

Liberal Arts in Vocational Education

Dr. Freedman discussed some of the socioeconomic problems arising in American communities as a result of automation and rapid changes in technology.

A frequent contemporary theme is that automation is about to produce drastic changes in our lives and reduce a large part of the work force. We hear proposals to shorten the work week, to provide guaranteed annual income, and to bring about new attitudes toward work and leisure. Should a drastic reduction of the work force suddenly develop because of automation, we will have an ethical as well as an economic problem. A man has to have a job to feel productive and useful. The concept that a man does not have to work for his living would be new to most Americans, and it would necessitate a change in our values.

In Dr. Freedman's opinion, the statements about the pace and extent of dislocation of the labor force tend to be exaggerated; nonetheless, automation presents a serious problem. Without new approaches to training and education, which continue throughout life, the steady growth of unemployment will be inevitable.

STATLER HILTON

As a new approach to education, Dr. Freedman suggested that we include significant components of the liberal arts at all levels. He gave three reasons for including "general education" as one element in all future education:

- From the vocational point of view, general education develops flexible attitudes in people and also improves their communication skills.
- General education helps people as citizens to understand how the world is being changed by automation and other forces.
- General education adds to the development of the individual, and it teaches him how to use his increased leisure time creatively.

To many people, leisure is a vacuum, although it can provide numerous opportunities for the appreciation and enjoyment of art, music, books, and the world of the future.

In conclusion, Dr. Freedman stated that there are too many unmet needs, both here and abroad, for us to accept growing unemployment as a permanent feature of modern life. There is a great need for the products of our American economy in our country and throughout the world. There is a great need for more recreational facilities and highways, and there is much to be done to improve our educational system. It would be shameful to immobilize our people in the face of all of these challenges. Even 5 percent unemployed is too much!

Occupational Training Centers for Adults

Mr. Clark discussed the operation of some of the occupational training programs for adults and how they are contributing to the training and retraining of California's work force.

According to Mr. Clark, adult education enrollments in vocational training courses constitute 31 percent of all enrollments in California's programs for adults. The programs are flexible enough for schools to be able to organize training courses ranging in duration from one week to 36 weeks. As examples of programs, he mentioned training for salesmen, medical assistants, offset press operators, service station attendants, journeyman electricians, and data processing machine operators. A partial listing of training opportunities can be found in the *Directory of Occupation-Centered Curriculums in California Junior Colleges and Schools for Adults*, a publication of the California State Department of Education.

The education program for adults in California is well equipped, in Mr. Clark's opinion, to offer courses in basic literacy and the courses a person would need to qualify for a high school diploma. After adults develop essential learning skills in these courses, they can master vocational knowledge and qualify for gainful employment.

Advisory and sponsoring groups, including labor unions and management, help to make education programs for adults practical and successful. They help adult education administrators establish goals and objectives for particular programs. These groups also help in developing course content and methods of teaching, and they recommend technically qualified candidates for instructors. The vocational training staff should act as counselors in guiding the right person into the right program. This is important, for failure in the classroom is of smaller consequence than failure on the job. Education programs for adults will need continuous adaptation to meet successfully the many challenges of our changing times.

Technology in the Employment Market

Mrs. Sullivan discussed some of the occupations that will continue to provide employment opportunities and some of the occupations that will be created as a result of technological change.

Constant changes in the job structure require a reexamination of our approach in preparing people for work. It takes 20 years or more for a child to grow into a mature and competent member of the labor force. However, the person's vocational preparation does not end when he becomes 20 years of age. The Director of the U.S. Employment Service, Louis Levine, has said that people will be changing *careers*—not just jobs—three or four times in a lifetime. Therefore, an effective education program for adults is, and will continue to be, needed most urgently.

Probably the most significant change in occupational structure has been the shift toward white-collar jobs. In 1910 white-collar workers constituted 22 percent of the labor force; by 1961 they made up 42 percent. The number of farm owners and manual laborers has declined dramatically.

A new classification, "bleached blue-collar" jobs, is growing rapidly. An example of this is the relatively new job of "console operator." This person is replacing many machine operators and processing laborers.

Today in manufacturing, mining, and construction, it is machines that count, not muscles. In offices, computer technology has curtailed the need for people doing routine tasks; among those displaced by machines are file, sorting, and recording clerks, and certain office-machine operators.

The fastest-growing occupational groups in the last decade are the professional, technical, and semitechnical workers—those who are the most highly trained in the white-collar group. Much of this increase has been taking place in the scientific and engineering professions, reflecting rapid advances in electronics, jet aircraft, guided missiles, chemicals, communications, and atomic energy.

The atomic energy industry provides an illustration of the emergence of new scientific and technical occupations. According to a study prepared by the Atomic Energy Commission in 1963 for the Bureau of Labor Statistics, the continuing progress in the development of atomic energy has generated a new industrial sector that in 1963 employed about 135,700 workers in more than 500 establishments.

Among the white-collar occupations, the sales group is expected to increase rapidly. Vocational training can play a major role in training people who are needed to sell, to a rapidly growing population, abundant new products and services produced by our expanded economy. Currently, there is a shortage in the following occupational categories: aeronautical engineer, canvasser and solicitor, chemical engineer, civil engineer, dietician, electronic and resistance spot welder, engine lathe operator, hydrotel operator, licensed vocational nurse, live-in housekeeper, live-in maid, machinist, mathematician, medical technician, module assembler, nurse, physician, policeman, programmer, social and welfare worker, systems analyst, teacher, and upholsterer.

There is also a need for more skilled craftsmen, such as carpenters, electricians, machinists, mechanics, molders, plumbers, repairmen, tool and die workers, vending machine routemen, and other skilled workers.

There are other jobs that have not been absorbed by automation and that have not been discussed here. The *Dictionary of Occupational Titles*, published by the U.S. Employment Service, provides the latest information on all jobs and trends in employment. A concerted effort on the part of all concerned and a willingness to apply energy, imagination, and research to the problems of modern technology will overcome the threat of unemployment of a large segment of the adult population.

School and Community Involvement for Programs for Adults

Treating the symposium topic, "Progress and Promise for Educating Adults for Employment," Mr. Goldman dealt with this question: "How are the school and community involved in the establishment, operation, and evaluation of the occupational programs for adults?"

First, he pointed out that we must consider why the community must be involved with the schools. Four reasons for such involvement were presented:

- Occupational training is necessarily a practical program.
- The schools cannot work in a vacuum.
- For practical ends to be achieved, there must be active community involvement and support.
- Financial aid is needed from the community as well as from the school district.

In order to carry out occupational programs for adults, Mr. Goldman continued, the schools must become actively involved with such organizations and agencies as these: (1) the federal government (for example, the Department of Health, Education, and Welfare and the Department of Labor); (2) state government (for example, the State Department of Education and the State Department of Employment); (3) labor; (4) management; (5) city government, including local antipoverty commissions; (6) foundations (such as Ford, Mott, Rosenberg); (7) universities; and (8) newspapers, radio, and television.

The next question that arises, according to Mr. Goldman, is: "How do schools get involved with these community agencies?" This involvement requires a sufficient school staff and a good working relationship with the relevant agencies and organizations. Not only is it necessary for schools to work together with these other groups, but adequate physical facilities must also be obtained. Often other facilities besides those provided by the schools must be utilized, such as rehabilitation workshops, senior centers, industrial sites, and public facilities. Advisory committees are also essential.

In terms of function, the school is responsible for curriculum and for obtaining teachers, and the State Department of Education is responsible for giving advice and counsel through its regional supervisors.

Although evaluation of the occupational programs for adults presented through the schools is always somewhat difficult, one of the most practical measurements of a program's success is its number of job placements and the length of time individuals remain on the job.

Rural Areas and Occupational Programs for Adults

Mr. Rhodes discussed this question: "How are the school and community involved in the establishment, operation, and evaluation of occupational training programs for adults in rural areas?" Pointing up the great need for occupational education for adults, Mr. Rhodes quoted President Johnson's statement that 20 percent—four times the national average—of America's eighteen to twenty-four-year olds with only an eighth grade education are unemployed, while employers are hunting for trained men and women. Jobs held by high school graduates increased by 40 percent in the last ten years. Jobs for those with less schooling decreased by nearly 10 percent.

The problems confronting the undereducated and unemployed citizens of rural areas (which are primarily dependent upon agriculture and related businesses) are as deep, as frustrating, and as permanent as are the economic and social stresses found in the urban communities. Automated and mechanical equipment is rapidly replacing much of the manual labor which has been necessary to agriculture throughout its history. Small farmers each year are finding it more difficult to operate profitably without extensive mechanical equipment.

In the rural areas, welfare and unemployment costs have skyrocketed, and a greater percent of the labor force is unemployed for longer periods each year. Increased community services, such as fire and police protection, and the high incidence of fire in inferior housing also add to the general community cost—so do the social problems of family disintegration, delinquency, and crime.

Each year a greater percent of the labor force is unemployed. The average unemployed person is thirty years old, and because of his lack of education and skills probably will remain unemployed the rest of his "productive" life. The average yearly unemployment payment, not including welfare benefits, is over $1,000 per family head. This means that society will spend over $30,000 on each such unemployed person in the next 30 years; then Social Security takes over. Multiply this by the number of hard-core unemployed, and the total is staggering. When such figures are properly presented to community leaders, they immediately develop an interest in solving employment problems.

Because they have a reasonably compact administration, rural areas, if given competent leadership, can often muster their resources more readily and more effectively than can sprawling urban complexes. The key question then appears to be: "Who can or who should provide the leadership to accelerate the necessary community effort?" Leadership, in Mr. Rhodes's opinion, should be the responsibility of the adult education administration of the particular area.

The first act should be to develop a community advisory committee, or what the Economic Opportunity Act calls a "community action committee." This group should include all segments of the community power structure. Data required from community agencies and from the 1960 census pertaining to the total community and its problems should be presented to the committee.

Rural communities find that with cooperative action on the part of the total community, they have the manpower, the knowledge, and the desire to solve their social and economic problems realistically and effectively. However, they need financial assistance from state and federal agencies, because their own resources are insufficient to meet the demands placed upon them.

Six Programs for Adults

Mr. Kadushin, speaking on the topic, "Adult Occupational Training Programs," said that the changing needs for vocational training require change in depth as well as change in kind. The level of training of the entire work force needs to be raised for two reasons: (1) to meet the increasing technical complexity of employment; and (2) in order to make room for the people being developed as our work force (for example, in the "war on poverty" program), those at lower-level jobs, such as the slow learners, will need to be upgraded. For example, there are gas station attendants who have technical abilities but who have not been encouraged or given sufficient instruction. Such people must be upgraded to make room for those who can do only a gas-pump-attendant type of job. In a person-oriented vocational program, what can we do to make such persons employable?

Mr. Kadushin described a pattern of six programs (four of them occupation-oriented, and two, person-oriented) of occupational training for adults. The two person-oriented programs were the "equal opportunity" type and the "war on poverty" type. The former is established by community organizations and government agencies at schools for adults and community colleges, and it is funded by government agencies, with instruction administered through the schools. The antipoverty type of program is established by government agencies, using contractual arrangements with schools and industry, and it is operated by industrial organizations and/or schools under contract to government agencies operating training centers.

The first two programs in the occupation-oriented group are of the "vestibule" or preemployment training type. Both programs are established by high schools and community colleges and are administered through the schools. The third program in this group is the "changing job requirements—retraining" type, which is established by industrial organizations and/or government-sponsored (MDTA) school programs. The fourth is the "changing job requirements—related or supplementary training" type, which is established by industrial organizations and adult evening or extension schools. Both the third and fourth types of occupation-oriented programs are operated by industry training specialists and/or school administrators.

Frequently Overlooked Nature of the Adult

Dr. Belanger, speaking on the topic, "Guidance Services for Adults," described ways in which adults differ from children in order to point up the fact that any program of instruction designed to prepare adults for employment must be accompanied by appropriate guidance services for adults if the program is to accomplish its purposes.

Stressing the importance of *process* and *product* in education, he pointed out that criticism of public education is based on dissatisfaction with the educational product. Can education assess the actual job skills of individuals so that both they and potential employers can clearly see the dimensions of the products of learning which the individual offers? Can there be a clear definition of the educational product which our educational process is designed to produce? The educational product can be assessed only in terms of the individual's job skills, he said. Education has to be individualized, or personalized, if its product is to be clearly discernible.

In guidance services for adults who are being educated for employment, the essential task is to help the individual determine the kind of educational product he should be. Guidance can be provided only in full partnership with the counselee. He must make his own decisions and face any consequences of such decision making. He must make his own commitments to the particular educational process which he clearly believes will help him become the product he desires to be. It is his expectation of himself as a product that allows him to become open to the process. Guidance services for adults in training for employment should help these adults to formulate individual educational plans, help them to test these plans, and help them to accomplish their goals.

Dr. Belanger suggested that the time is rapidly approaching when the state of California will create the "comprehensive school district"—one which, with other community agencies and colleges, will be equally concerned with nursery school, elementary school, high school, and adult education, utilizing every available setting for education and remaining open around the clock all year long. Each area would have a community guidance center to assist people of all ages in their pursuit of job skills or the good life—a place where people could freely discuss their hopes and their dreams, a place which could refer them to an educational process able to help them become the product of America which they aspire to be.

This section developed the view that there is a great and urgent need for extending vocational education programs for adults. The changing needs of an increasingly automated society make it imperative for us to reach as many as possible of the unemployed and the underemployed adults who need to reformulate their occupational programs. Much is already being done through the efforts of individual agencies in urban and rural areas, as well as through the efforts of these agencies working together.

Among the many continuing problems, however, is the problem of educating or reeducating the adult lacking skills and ambition, the person who does not feel himself capable of undertaking a serious vocational education program. But through the continuing efforts of federal, state, and local agencies, even this problem may some day be overcome.

What kind of education should adults have? They should be provided both occupational training for immediate employment and a liberal arts education to help them adapt to the changes resulting from new technology. Dr. Freedman believes that liberal arts will have to play a greater role in the vocational education process, since the liberal arts have the potentiality of making man more flexible and better able to cope with ever changing job requirements, as well as with the need for better use of the leisure time which is increasingly available to more workers at all levels.

Several panel members said that in the past few years there have been too many legislative acts and too many new programs in the area of vocational education. One panel speaker expressed the wish for time to become better organized, to implement the existing laws, and to do all of these things right! The selection of the right people and the right kinds of programs, he said, constitute the most important current aspect of adult vocational education.

DISCUSSION SECTION NINE

Counseling and Guidance for Occupational Training

IN SETTING THE STAGE for the panel, Dr. Smallenburg identified the following as discussion topics:

- How Youth Determines Vocational Choices
- What Assistance Youth Needs in Making Plans for Gainful Employment
- Identification of the Contributions of School, Industry, Business, and Parents in Vocational Guidance for Youth
- Exploration of New Ways of Working Cooperatively

As additional stimulation for discussion, he posed three fundamental questions: (1) What are some of the causes of occupational maladjustment? (2) What are some desirable characteristics of a career guidance program? (3) What are some of the organizational patterns for presenting career information?

In answer to the first question, Dr. Smallenburg pointed out that 41 percent of adult workers surveyed in a study indicated dissatisfaction with their careers. The problems they cited were (1) discrimination against minority groups in education and employment; (2) lack of job experience among younger workers; (3) age (more of the older than the younger workers were dissatisfied); (4) prevalence of women in the labor force; (5) lack of opportunities for handicapped workers; and (6) aspirations of workers (80 percent aspired to higher-level jobs, but only 20 percent achieved them, indicating a need for realistic goals).

CHAIRMAN: Harry Smallenburg, Director, Division of Research and Guidance, Office of the Los Angeles County Superintendent of Schools

PANELISTS: Muriel I. Sheldon, Supervisor, Secondary Guidance and Counseling, Los Angeles Unified School District; Mrs. Ruth Miller, Educational Director, Amalgamated Clothing Workers of America, Southern California Joint Board, Los Angeles; Karl R. Kunze, Manager, Training and Management, Personnel Department, Lockheed Aircraft Corporation, Burbank; Henry A. Talbert, Western Regional Director, National Urban League, Los Angeles

RECORDERS: Milton R. White, Jerry Dimitman

Dr. Smallenburg gave the following desirable characteristics of a career guidance program and pointers for counselors:

- *Involvement of total staff and community resources in planning and presenting a program early in the high school years.* Solicit aid from classroom teachers and from the community. Consult with parents. Allow students to assume responsibility for their own plans.
- *Knowledge of the labor force.* Understand systems for classifying occupations. Provide reliable information on labor market needs and trends. Understand the experience and role of women in the labor force and the relationship of employment to marriage, home life, parenthood, and other factors.
- *Development of tentative educational and career plans based on job information and the student's self-understanding.* Teach job-getting and job-holding techniques. Develop in students attitudes consistent with job satisfaction and wholesome employer-employee relationships.
- *Preparation of an educational plan.* Develop long-range post-high school training plans for achieving tentative career goals. Include opportunities provided by colleges, military services, trade schools, and industrial training programs.
- *Administration and organization.* Provide time and personnel for an independent and systematic program of individual and group learning experiences. Provide inservice training for those who are to conduct the program. Provide an adequate library of occupational materials and visual aids. Offer placement services for students.

Four major points were assigned to each panelist for discussion within the context of his own organization:

1. What does youth need to make vocational choices?

2. What assistance does your organization give in counseling youth?

3. What plans does your organization have for the future development of counseling?

4. How can we all work together more effectively in helping youth to reach their full potential?

School District

Miss Sheldon, of the Los Angeles Unified School District, outlined four basic steps toward a wise occupational choice: (1) self-analysis; (2) information about the labor market trends and required training; (3) application of this knowledge in tentative vocational choices; and (4) placement and follow-up. She termed this a developmental process.

Pointing to progress in the Los Angeles program, Miss Sheldon discussed the group guidance in the eighth, ninth, and tenth grades. She indicated that job placement and student follow-up are separated. She also noted that after the tenth grade, all vocational guidance is conducted on an individual basis.

More individual counseling is needed, she indicated, and pointed to the austere budget as the limiting factor in providing more professional counseling time. Streamlined administrative procedures and counselors with broader skills are needed to reduce red tape and paperwork. Group vocational counseling, with peers participating, is a desirable improvement to help youth develop realistic goals. Work with parents in groups was also mentioned as a possible improvement. Although there is need to work more comprehensively with groups in business, government, and the colleges, Miss Sheldon noted that Los Angeles counselors already have difficulty in covering the multitude of meetings, conferences, luncheons, and dinners offered by various groups endeavoring to offer specific vocational data.

Miss Sheldon stressed the need for more skilled counselors and the fact that more counselors are becoming available. She agreed that there is a need for people to feel that "labor is good."

Industry

Mr. Kunze pointed to the changing nature of vocational choice from the day when youth made the selection once and remained with it to today's pattern of making several decisions before making a final selection. He indicated that vocational choice has become part of a lifelong process of changing vocational needs, changing levels of aspiration, and changing careers.

He pointed out that lack of knowledge about careers is a major problem for young people faced with vocational decisions. During school the young person acquires academic knowledge and "experiential" knowledge, e.g., shop classes, applied courses, typing classes. Mr. Kunze pointed out serious problems in that there is less opportunity today for youth to acquire experiential knowledge, and parents and teachers are having more difficulty in keeping up to date in all fields because of the rapidly changing technology of society.

Although the counselor of today has better knowledge and information, inadequate national distribution of labor information is hampering his effectiveness.

Commenting upon a national committee assignment he has undertaken for the government, Mr. Kunze cited supply and demand figures for counselors. At present, there are 50,000 counselors in the nation; another 35,000 will be needed in the next two years, and training requirements have increased. Future needs are for utilization of present work forces, more training of existing work forces, studies of an "occupational mix" for the future, and related studies of reduction of certain types of jobs.

Reviewing his company's present contribution in the area of counseling, Mr. Kunze pointed to the employment interview and related application, testing, and knowledge of the job market as phases of assistance to youth. Industrial placement counselors are trained personnel representatives or interviewers, he stated. Industrial counselors tend to work more closely with those who have been employed for some time than with those hired recently.

With respect to cooperative efforts, Mr. Kunze said that current strengthening of academic education is beneficial and reflects requirements of today's jobs, but academic courses must not be taught at the expense of vocational training—balance is needed.

Urban League

Reviewing Urban League attention to counseling, Mr. Talbert pointed out that his organization has been contributing to this area for 54 years.

Mr. Talbert cited the following statistics from the U.S. Census:

- Of the white population, 70 percent complete high school, but only 40 percent of the nonwhite population complete high school.
- Of the total population, 11 percent are Negro; 3.5 percent of all professional workers are Negro.
- Negroes with a college degree earn less, on the average, than whites with only a high school education.

The League feels that the need for cooperation with racial minorities is most evident. Mr. Talbert cautioned against mistaking the current social revolution as simply the handiwork of a few disgruntled, radical, irresponsible persons. "Beneath and around all of this is a sizable segment of the nonwhite community that is concerned with what happens in the future."

Mr. Talbert also referred to a statement by the president of the U.S. Chamber of Commerce that 70 percent of the youngsters who graduate from high school each year plan to go directly into the work force. Many of them would like to take some form of advanced vocational or technical training, but they find themselves blocked by adult disapproval. Some are dissuaded by ill-informed guidance counselors who are out of touch with the working world. Some of the college-bound youth would also prefer vocational training, but all too often their parents insist upon a college degree at any price. "We can't do much about parents," Mr. Talbert said, "but we certainly can improve the quality of our school counselors by exposing them more effectively to the opportunities that exist for young men and women who are willing and able to develop marketable skills."

The Urban League position is that youth need counselors better able to recognize problems and to offer more realistic counseling—counselors who are qualified, who are more committed, who provide more minority race role models, and who represent a better balance between various kinds of occupational training. Specific League programs, current and projected, are:

- "Tomorrow's Scientist Technicians," in which young people are exposed to a variety of work situations
- Offers of counselor training by Urban League executives at the beginning of the school year
- A "skills bank," matching persons to openings throughout the nation
- Cooperation with the Economic Opportunities Act programs providing more help for the nonwhite population
- Mobile counseling units, which take counselors to youth
- Family motivation programs

As his concluding statement, Mr. Talbert announced a newly planned Urban League conference to be held

in Tucson, Arizona. Persons who have lived in poverty will be brought to the conference to discuss the problems of the poor with educators and sociologists.

Labor

Organized labor has a distinct interest in the talents, interests, and aptitudes of students making vocational choices, Mrs. Miller said. She pointed out that labor is reaching students through parents who are members of the AFL-CIO groups.

Mrs. Miller indicated that counseling is a tripartite problem: (1) the student's talents, interests, and aptitudes need to be identified, along with his general and specific motivation; (2) a great improvement is needed in the flow of up-to-date information on job opportunities; and (3) counselors need to help youth combine their talents, interests, and aptitudes within the scope of the "realistic" world of work.

Mrs. Miller suggested that counseling should begin as early as possible—not later than the seventh grade—and that industrial arts overview courses should be given in junior high school. These courses should encompass five major areas of four weeks each for girls as well as boys.

The majority of counselors are still academically oriented, she stated, and a profound change is needed in attitudes toward vocational education. She did not mean simply that vocational education should have more status, but that teachers and vocational counselors should realize that they are preparing young people for a real world of available employment and that vocational education is highly significant.

Current efforts being made by labor include sponsoring conferences on community problems, including public education; cooperating with community groups such as the Youth Opportunities Board; and participating in apprenticeship programs.

Concluding, Mrs. Miller emphasized the need for early counseling, more and better counselors, better industry-government-labor cooperation, and an overall greater respect for work.

Discussion

Speaking of California's master plan for higher education, Mrs. Miller stated that much the same type of plan should be developed for vocational education on a statewide basis, with a communication system for transmitting vocational information for students.

The problem of bringing together the total community to support increased programs of counseling was highlighted by discussion of increased requirements for counselors and increased specialization. A committee in Washington, headed by C. Gilbert Wrenn, authority on student personnel matters, was quoted to the effect that the situation will get worse before it gets better. Progress in group counseling was pointed to as one improved area.

The opinion was expressed that the public, labor, management, and educational administrators need to be brought together in their thinking toward financing improved counseling programs. Noted also were recent comments in the California Legislature regarding need for more attention to teaching and less emphasis on administration and counseling and peripheral educational services.

Margaret Crawford of Los Angeles Trade Tech reported that some 6,000 people a year are tested in that school, which employs only three counselors and one assistant dean of counseling. The staff is augmented by instructor-counselors, well qualified to counsel in their field, who confer with the students after test score evaluations. The testing program includes aptitude tests for all of the 55 trades taught.

The need for counseling programs directed toward other than college-bound students was cited, along with the need for more positive feelings among counselors about vocations. Because of their academic backgrounds, counselors are sometimes uncomfortable when they get involved with counseling in vocations. Reeducation of parents regarding vocations—since almost all parents want their children to go to college—was stressed, with parental pressure cited as the primary factor affecting a youth's decisions about careers until he leaves high school.

In the Los Angeles Unified School District, the use of parents on panels counseling disadvantaged youth has been highly beneficial. The Parent-Teacher Association was recommended as a truly helpful group, not to be overlooked in involving parents in counseling.

Changes in rigid academic requirements were urged to relieve pressure upon vocational programs, while the need for additional time in vocational classes and for scheduling two or three periods for shop courses was also noted, thus indicating the scheduling conflicts that arise between academic and vocational programs.

Vocational education's lack of prestige was pinpointed by a statement that "we need to dignify all work and dignify all phases of the curriculum—not just with lip service, but we need to really mean it."

Panel Summary

Dr. Smallenburg summarized by reviewing seven areas of agreement:

1. There is concern for improving counseling and guidance on the part of schools.

2. There is action—the various groups are taking steps to assist youth.

3. There is vision—the groups represented are looking ahead to the future.

4. There is a desire to cooperate.

5. There is agreement on the importance of the counselor.

6. There is a shift in emphasis noted toward vocations.

7. Problems still exist—financial, administrative and intraprofessional.

STATLER HILTON

DISCUSSION SECTION TEN

The Responsibility of the Department of Education for Vocational Education

CHAIRMAN: C. W. Patrick, Assistant Superintendent, Higher and Adult Education, San Diego Unified School District

PANELISTS: Armin Henderson, Secretary-Treasurer, District Council of Carpenters, San Diego; Robert E. Kelly, Associate Superintendent, Division of Secondary Education, Los Angeles Unified School District; William J. McCann, Executive Secretary, Southern California Industry Education Council; Robert Swensen, President, Cabrillo College, and President, California Junior College Association

RECORDERS: Ralph Ritchie, Rod Garrity

THE THEME FOR THIS SESSION developed from three questions:

- What kind of organization of the State Department of Education would be best?
- What kind of leadership should the Department offer?
- What is the role of the Department in maintaining educational standards?

The discussion was guided by these questions, and this report is structured accordingly. (In this report, "Department" is the term used to identify the Vocational Education Section of the California State Department of Education.)

Organization

The dominant topic was communication. New communication practices must be instituted. The Department should serve as an information center, actively communicating with all agencies involved in vocational education. Information from these sources should be readily available to interested persons or schools. Of primary importance is liaison with interested groups outside vocational education. Simple, flexible methods of reporting to the Department should be devised.

The Department should have available a number of specialists for consultation. These specialists should be specifically acquainted with the problems of a given level (junior high, high school, junior college, or adult) of vocational education and also identified with a specific field. They should devise evaluation procedures which could be used by schools to determine the effectiveness of their vocational programs. The evaluation process should be administered by the schools, but specialists should be available for consultation upon request.

Research in the Department should be directed toward investigations on a statewide or areawide basis. Efforts should emphasize industrial and occupational trends, identification of geographic and technical areas, identification of entry occupations, and problems which school districts cannot handle unaided.

Leadership

Liaison with industry and unions should be a primary activity of the Department. The vital importance of communications was given the most emphasis by both panel members and the audience.

The Department should serve as mediator and give direction in vocational education problems which involve schools, labor, industry, and other groups. Articulation and coordination, especially between high school and junior college vocational programs, should originate with the Department.

The Department should take active leadership in the improvement of vocational teacher training. Revision of teacher training practices is necessary. Sources for teachers should be identified, and new techniques for selecting, upgrading, and updating vocational teachers should be instituted. Teaching internship programs should be expanded and improved.

It was suggested that the existence of a master plan for vocational education would assist management and labor to coordinate their programs with the Department of Education. Another suggestion made was that the Department should not enter into political activity.

Standards

Performance, employment, and training standards should be in agreement. The establishment of standards for terminology and performance should be the responsibility of the Department.

The problem of the many agencies operating in vocational education came up in this discussion of standards and qualifications. Without coordination, any given set of performance standards may not meet the requirements of industry. As an illustration, the typing performance specifications of the State Department of Employment were claimed to be inadequate for industry. It was felt that the Department should be the source and coordinator of final standards.

Concern was also expressed over the existence of dual standards for academic and vocational instruction. No decisions or recommendations evolved from this discussion.

Other Recommendations

The use of project teams may be the solution to the problem of rapid change. Area "skill centers" should be formed. Each junior college should be a top-quality vocational school. Coordinated efforts would avoid costly, useless duplications among the junior colleges.

GEORGE E. McMULLEN

DISCUSSION SECTION ELEVEN

Financing Vocational Education

CHAIRMAN: J. Lyman Goldsmith, Coordinator, Programs for Vocational Education, Los Angeles Unified School District

PANELISTS: Claude W. Fawcett, Associate Professor of Education, Educational Placement Office, University of California, Los Angeles; George E. McMullen, Administrative Coordinator, Budget Division, Los Angeles Unified School District; Norman R. Stanger, Director, Vocational Education, Office of the Orange County Superintendent of Schools, Santa Ana; Joseph H. Stephenson, Director of Vocational Education, San Diego Junior Colleges

RECORDERS: Richard T. Nelson, Milton French, William Armstrong

THE FINANCIAL ASPECTS of vocational education are both complex and crucial—complex because of the variety of federal, state, and local fundings; crucial because adequate financing is basic to the quality and availability of vocational education programs. This section was concerned with the manner in which vocational education may be accorded the financial support essential to its improvement and future development.

Providing good vocational education is not only a state and local problem; it is also a national problem. Financing vocational education is not the responsibility of any single segment of government—local, state, or federal—but of all levels of government, plus business and industry. The cost of the present vocational education program should be examined in view of its socioeconomic aspects, present support, real and/or hidden costs, and possible sources of adequate financial support. The panelists reviewing these areas were well-known southern California educators who have been associated with vocational education for many years.

Sociological Aspects of the Costs

"In the field of vocational education, we are in grave danger of being inundated by technological changes."

A review of the amount of energy expended for goods and services by man, animals, and machines from 1800 to 1900 shows that the energy expended by man was reduced 38 percent, the energy expended by animals was reduced 35 percent, and the energy expended by machines was increased 533 percent. The average work week in 1800 was 70 hours, and the projected work week for 1970 is 37.5 hours. The value of average daily production has changed from 27 cents in 1800 to a projected $5.02 in 1970 (both figures based on 1947 dollars). These figures should clearly indicate that man's productive skills have been able to keep up with the growth of mechanization. How much would the forecast, or the present, value of average daily production be if man could have immediately implemented discoveries and inventions of processes and machines?

Usually seven to 12 years elapse before discoveries are accepted and implemented. This time lag should give prospective displaced workers adequate time to

acquire new skills. However, workers have a natural reluctance to prepare for new jobs until they are out of work. Also, in select areas—usually government or secret industrial areas—the implementation of a new discovery must wait until qualified personnel are trained. It behooves vocational education to establish communication lines in these special areas.

If vocational education can shorten the time lag in implementing discoveries, the economic cost to the gross national product caused by technological advances can be greatly reduced. If the work force had been no better prepared in 1960 than it was in 1950, our national production in 1960 would have been 10 percent less than it actually was.

Advancing technology is changing the composition of the work force in the United States. The large proportion of unskilled laborers is being supplanted by a large proportion of skilled, clerical, and professional workers.

According to a study conducted in San Diego, 80 percent of the unskilled labor group had less than a high school education. The dependents of this group represented 62 percent of the high school dropouts. This study also showed that the average intelligence level of the dropouts was very close to that of the high school graduates. Therefore, Dr. Fawcett believes that dropouts will decrease in number as the skills of their parents are upgraded and parents concomitantly overcome their resistance to change. The person entering the labor market today must expect to have to learn another skill within his lifetime.

The Real Costs of Vocational Education

"If we are going to increase the gross national product . . . we are inching up on a total commitment to education."

Before the community is asked to support program expansion or a new program, time and money must be spent developing the plan for presentation. The California Plan for Vocational Education recognizes that the public wants to know the intent and principles of the various programs. Presentations of proposals are very important in order to get public commitment.

Hidden costs should be included in the school district plan—costs for expansion, program development, and future programs. Other hidden costs for equipment maintenance, spare parts, depreciation, and personnel salaries should also be included. The total vocational education program should be shown, including both the present and the new proposal, so that their impact on future expenditures can be recognized.

Mr. McMullen observed that school financing is moving toward the program budgeting concept to evaluate the cost of education. If the federal government should use funding procedures similar to those used by the Department of Defense, this could work a handicap on school districts.

Another hidden cost to be considered relates to the timing of disbursement once a program is accepted. All of the program money should be allocated immediately to the local level to reduce the time it takes to implement the program.

Financial support for vocational education comes from the school district, with dollar-matching funds coming from the federal government to the state government for distribution and planning. In the past, the Smith-Hughes Act has been the major source of funds for vocational education, and it is still in effect with the Vocational Education Act of 1963. Other laws in the past have not been as liberal as the act of 1963, but they have recognized the need for retraining.

The Vocational Education Act of 1963 is designed to maintain, extend, and improve existing programs and to develop new programs of vocational education. This program requires evaluation to improve quality and to give the taxpayer more for his money.

The latest act which has made available large untapped funds for retraining is the Antipoverty Bill, officially known as the Economic Opportunities Act of 1964. This act has a very broad base, but there has not been enough time to evaluate its effect on vocational education. The wording of the act may be construed to mean that the federal government and private industry could operate a program which parallels the present vocational education program in the community. Such a program is now being attempted in Orange County.

Mr. Stanger stated, "The total education cost is supported 57 percent by local funds, 40 percent by state funds, 2 percent by federal funds, and 1 percent by miscellaneous funds." The local contribution has been increasing, and the state portion has been decreasing. The miscellaneous group includes business, industry, and trust funds.

Vocational educators prefer federal support but not federal control or competition.

Possible Solutions for Adequate Financing

Mr. Stephenson presented a list of principles or basic rules which, if followed, could solve some of the problems of adequate financial support for vocational education. He emphasized the area of excess costs: "Any method of financing vocational education should provide for legitimate excess costs." The precedent of excess-cost basis already has been established in educational programs for the physically handicapped, mentally retarded, and gifted, and in compensatory education as well.

Excess costs develop in the need for special equipment and supplies, in machine depreciation and obsolescence, and in machine replacement. Some of these costs must be borne if workers are to be trained in specialized mechanical skills.

Mr. Stephenson believes there are adequate funds available for the present vocational education programs if the funds are distributed properly. Proper distribution requires cooperation among all the people associated with vocational education.

Summary

Losses in the gross national product could be greatly reduced by adequate vocational education programs. It is vocational education's responsibility to reduce, and possibly close, the gap between the time technological discoveries are made and the time of their implementation. Communication lines must be set up among industry, potential workers, and vocational educators so that retraining may begin earlier and reduce the time lag.

New money has been appropriated for vocational education to supplement the present vocational programs, but more importantly to expand the present program and to develop new and better occupational preparation. Planning, evaluating, and budgeting of all programs are needed, and the costs of these phases must be recognized as necessary costs. Program proposals should be complete and have some uniformity so that better decisions can be made and also so the proposals will have a greater chance of acceptance. Vocational education must be recognized as an excess-cost program, and it should be presented and compared with other excess-cost programs.

The new money available could imply new controls, so it behooves the local vocational education system to maintain and improve its coverage and quality. There is no reason for the federal government to run a duplicate system in the same community.

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